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1974 50th annual
SUMMARY OF ILLINOIS FARM BUSINESS RECORDS

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COMMERCIAL FARMS: Production / Costs / Income / Investments

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN / COLLEGE OF AGRICULTURE / COOPERATIVE EXTENSION SERVICE / CIRCULAR 1113

Source of Data

This report is based on data obtained from farm business records on 7,036 Illinois farms. It is the 50th in a series of annual summaries of such records obtained from farmers cooperating with the University of Illinois Cooperative Extension Service, the Department of Agricultural Economics, and the Illinois Farm Business Farm Management Association.

At present about 1 out of every 4 commercial farmers with $40,000 or more of gross sales in Illinois is enrolled in this service. The service has grown steadily, and in 1975 there are 10 associations in 102 counties served by 49 full-time fieldmen. Participation in this farm business analysis program is voluntary, and cooperating farmers pay a fee for the educational services received.

The development since 1940 is shown by the following figures:

Year	*Associations*	*Counties participating*	*Fieldmen employed*	*Farmers enrolled*
1940	3	23	3	680
1950	8	59	15	2,760
1960	10	100	33	5,494
1970	10	102	42	6,553
1974	10	102	49	7,036

Over 85 percent of the 7,036 farms in this report fall within the size of business of Economic Class I and II as defined in the 1969 Census of Agriculture. These two classes include farms selling $20,000 or more of farm products a year.

The segment of Illinois agriculture that includes farms with more than $10,000 in sales per farm is often referred to as "commercial farming." In 1969, there were 67,586 farms in Illinois with more than $10,000 of product sales. The figures that follow, taken from the 1969 Census of Agriculture, show these farms represented 55 percent of the total number of farms and produced 92 percent of the agricultural products sold from Illinois farms.

Sales per farm (thousands of dollars)	*Percent of total value of agricultural production*	*Percent of total farms*	*Percent of census farms enrolled in FBFM*	*Number of farms enrolled in FBFM*
80 and over	22.8	3.4	31.2	1,324
40 to 79	27.0	10.0	21.4	2,663
20 to 39	28.1	20.9	6.6	1,718
10 to 19	14.0	20.3	1.4	374

Although the record-keeping farms in this report are largely within the first three sales-per-farm classes, the figures above show they are not proportionately distributed among the groups. There were 4,253 Illinois farms identified with more than $80,000 in sales. Nearly one-third (31.2 percent) of these farms were enrolled in the Illinois Farm Business Farm Management Association. Of the 12,377 farms that sold from $40,000 to $79,999 of products, 21.4 percent participated in the farm record program. Only 4 percent of the farms with sales ranging from $10,000 to $40,000 were enrolled. Average size of all farms enrolled in 1973 was 497 acres compared with an average of 231 acres for all Illinois farms.

The data presented in this report are group averages identified by size of business, type of farm, and quality of soil found on the farm. Where segments of Illinois agriculture are identified by these criteria, the data from record-keeping farms may be used with reasonable confidence, even though the record-keeping farms as a group do not represent a cross-section of all commercial farms in the state.

Uses for This Report

The management of a modern commercial farm involves decision-making in the application of technology, the choice of a proper combination of crop and livestock enterprises, and effective business administration of the farming operations. A basic farm business analysis involves a careful study of past performance to detect problem areas and strengths in the farming operation. Also involved is the process of planning and developing future operations to attain the full potential of the land, labor, and capital resources available and to improve economic efficiency of the farm business.

The farm business summaries contained in this report are used by individual farmers to analyze their business operations and as a basis on which to develop plans for future farming operations. This report summarizes the information so that specialists working in agricultural extension, research, teaching, and agribusiness activities may use the data to assist them in the effective performance of their duties.

The data are presented in three sections. In the first part of the report (Tables 1 to 5) recent changes in farm income on Illinois farms are summarized. Economic forces and factors that contribute to these changing trends are identified.

In the second section, detailed livestock enterprise data are presented. These data (Tables 6 to 15) provide comprehensive and detailed information for use as resource data by all who are interested in livestock production. Because a large proportion of the feed grains and roughages produced on Illinois farms is marketed through livestock, the margins of income from livestock enterprises are important in interpreting the economic results of farming operations.

The third section (Tables 16 to 20a) reports costs, returns, financial summaries, investments, land use, and crop yields for different sizes and types of farms in northern and southern Illinois. The definitions of terms and accounting measures that precede these tables will aid in using the data.

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SUMMARY OF ILLINOIS FARM BUSINESS RECORDS, 1974

Farm business trends in 1974

Illinois agriculture is based largely on crop production, especially the corn and soybean crops. The total value of corn and soybeans produced on Illinois farms in 1974 was 18 percent of the total U.S. production for these crops. In 1973 the total value was 59 percent of the total cash receipts in Illinois from all crops and livestock and 93 percent of the cash receipts from all crops sold by Illinois farmers.

Crops. Year-to-year variations in net farm income are related to crop yields and grain prices. In 1974 grain prices moved up in response to reports of adverse growing conditions and low yields. Prices received for corn sold averaged 60 to 70 percent higher and for soybeans 30 to 40 percent higher than in 1973 (Table 15). The Illinois all-crop production index, after staying at 158 percent of its 1957-1959 base for three consecutive years, was down 16 percent from 1973 to 131. Yields of all crops were equal to or below the 1973 yields.

Crop planting and growing conditions for 1974 were among the poorest on record. Many areas of the state had two to three times their normal rainfall in May. Planting was virtually at a standstill in most areas of the state from about May 7 to June 1 because of wet and cold weather. A severe drought followed in July and August. Much of the state's corn and soybean acreage sustained some damage from early frosts on September 22 and 23 and again on October 2 and 3.

Corn yields for the state in 1974, as recorded by the Illinois Crop Reporting Service, were 83 bushels per acre compared with 103 bushels per acre in 1973. Soybean yields were 24 bushels per acre, 7 bushels lower than in 1973. The average wheat yield of 30 bushels per acre was the same as the 1973 yield. Harvested acres of corn and soybeans were 5 percent lower than in 1973 while acreage for wheat increased 38 percent. About 3 percent of the soybean acreage in southern Illinois was planted to double-cropped soybeans following wheat harvest.

Livestock. A second major determinant of change in farm income is the price farmers receive for livestock and livestock products sold. Market prices received by farm record keepers in 1974 gradually declined from record high prices in 1973. Market prices for hogs averaged 12 percent lower than in 1973, 6 percent lower for fed cattle, 4 percent lower for eggs, but 20 percent higher for milk (Table 15). Prices paid for all weights of feeder cattle purchased averaged 29 percent lower than in 1973. The year was characterized by falling livestock prices and increased costs of production. This followed two years when prices were increasing faster than the cost of production.

Labor and management earnings

The 1971-1974 average operator's share of labor and management earnings from all record-keeping farms north of a line from Mattoon to Alton (northern and central Illinois) was $18,315 per farm. Operators on 1,714 grain and hog farms in this area and south of a line from Kankakee to Moline (central Illinois) had three-year average earnings of $27,954 (Table 1). The smaller sizes of farms and variable soil quality in northern Illinois contributed to lower earnings from crops. These farms had lower crop yields and averaged 392 tillable acres per farm compared with 484 tillable acres on central Illinois farms. There was considerable variation in these earnings, depending on location and type of farm. Data for southern Illinois are for 1973 and 1974 only, since the previous two years of data were not available. Earnings for 1974 were down 41 percent from the record high 1973 level.

These earnings (salary) for the operator of the farm — whether tenant, part-owner, or owner-operator — were for the labor and management performed by

Table 1. — Operator's Share of Labor and Management Earnings by Size and Type of Farm (1971–74 Average)[a]

	Number of acres per farm			
	Under 340	340–649	650+	All
NORTHERN ILLINOIS				
Acres of tillable land	216	433	808	392
Labor and management earnings by type of farm:				
Grain	$11,155	$21,172	$37,130	$21,734
Hog	15,156	20,865	...	17,533
Beef[b]	5,836	9,798	17,647	9,451
Dairy	7,767	12,940	...	9,366
All	10,068	17,902	32,282	17,194
CENTRAL ILLINOIS				
Acres of tillable land	242	445	810	484
Labor and management earnings by type of farm:				
Grain (86–100 SPR)[c]	$16,470	$26,982	$47,457	$30,426
Grain (56–85 SPR)[d]	12,924	22,322	38,478	25,209
Hog	19,921	29,586	28,175	26,338
All	16,310	26,090	43,100	27,954
SOUTHERN ILLINOIS				
Acres of tillable land	223	436	845	466
Labor and management earnings by type of farm:[a]				
Grain	$18,488	$27,110	$46,058	$32,281
Hog	19,019	35,728	...	29,844
Dairy	15,161	21,620	...	16,818
All	17,264	29,023	46,058	29,551

[a] 1973–74 average only for southern Illinois.
[b] Includes central Illinois.
[c] Highly productive soils.
[d] Heavy till and transition soils.
SPR: Soil productivity rating.

the operator. They included the operator's gross sales and net change in inventory reduced by all expenses for items purchased, including interest paid; a charge for the unpaid family labor used; an 8-percent interest charge on equity in assets other than land; and a 5-percent charge on equity in land. These record-keeping farms are larger than the average size of all farms in the area. The earnings do not include the rental value of dwellings on rented farms or income from nonfarm sources.

Income changes on Illinois farms

Comparative costs and returns between years and among major types of farming in northern and southern Illinois are reported in Tables 3 to 5. The separation of farms into northern and southern Illinois is based on soil-type regions, and divides the state approximately on an east-west line from Mattoon to Alton. The sample of farms ranged in size between 340 and 499 acres for grain, hog, and beef farms, and averaged 420 acres. The dairy farms ranged between 260 and 339 acres, and averaged 296 acres. Labor available on farms of this size averaged 15 months on grain farms, 19 months on hog and beef farms, and 22 months on dairy farms. The data in these tables are presented as if the farms were all owner-operated. Landlord and tenant shares of the business were combined where farms were leased.

Size of farm, type of farm, quality of soil, and managerial inputs were held reasonably constant over time by the sampling procedure used in selecting farms within each type of farm. Variations among 1973, 1974, and the 5-year average are due to changes in farm prices and costs, weather, and internal farming adjustments made within each system of farming. The data in these tables are particularly helpful for evaluating changes in farm costs and returns within a particular size and type of farm, and in making comparisons between types of farming. The data do not reflect overall farming adjustments resulting from farm enlargement or major changes in resource use.

The farm and family earnings measure includes returns to the farm family for all unpaid labor, interest on invested capital, and managerial inputs used in farming. Changes in value of farm inventories and value of farm products consumed are included as income. Farm and family earnings are calculated by accounting methods that are generally comparable to the accrual method of calculating taxable farm income for the federal income tax. Important differences in accrual income tax accounting methods are the provision for capital gains on livestock sales and the inclusion of interest paid as a farm expense.

The farm and family earnings figure is the amount available from the farm business to pay for living costs, income and social security taxes, interest, debt repayment, and new investments, and to increase savings. Purchases of new capital investments for the farm business have been included with total cash expenditures. Although the cash balance figure reflects the cash position of the farm business, it is influenced by purchases and sales of feed and livestock and by changes in liabilities and borrowed funds.

The investment per farm is established as of January 1 of each year. Physical quantities of grain and livestock are valued at farm market prices. Machinery, buildings, and soil fertility are valued at remaining capital cost (original cost less depreciation charged to date). Land is priced at current values. A basic value is established for each farm, based on a soil-productivity rating, and is adjusted to a current value each year by using the March index of land prices in Illinois. All soil-productivity ratings were revised in 1971 to reflect a basic level of management as outlined in Illinois Extension Circular 1016, Productivity of Illinois Soils, and new land values were assigned. The change in land values represents an accounting adjustment to bring land values to current market levels. The land value index for 1974, using a base earning value of 1970 = 100, was 162. This was 34 percent higher than the index used in 1973.

Northern Illinois farms

Grain farms. Farm and family earnings on northern Illinois grain farms (340-499 acres) in 1974 averaged $69,752 with operator and landlord shares combined (Table 3). These earnings are 4 percent above the record high 1973 earnings, but not enough increase to offset the higher interest charges on increased land values. The 26-percent increase in cash operating expenses and 21-percent reduction in crop yields were offset by higher grain prices for crops sold and inventoried. Grain farms of 340-499 acres are the most common size and type of farm in the record-keeping program.

Corn and soybeans are the major crops produced on these farms. A comparison of the 1974 cost per acre to grow corn and soybeans with the 1973 cost is shown in Table 2. In 1974, these costs averaged $218 per acre for corn and $178 per acre for soybeans. From 1973 to 1974, the total cost per acre increased 30 percent — or $51 per acre — for corn, and 26 percent — or $37 per acre — for soybeans. Variable costs increased $23 per acre for corn and $8 per acre for soybeans. Most costs increased 18 to 20 percent, but fertilizer expenditures for corn went up 51 percent, or $14 per acre, from 1973 to 1974. Had yields in 1974 been at the 1971-1974 average for these farms of 125 bushels per acre for corn and 40 bushels for soybeans, the cost per bushel would have been $1.74 for corn and $4.44 for soybeans.

The soil fertility cost for soybeans was allocated on the basis of P, K, and lime removals, with the residual cost allocated to corn. The seed, crop, and drying expenses included seed, herbicides, insecticides, and drying fuel purchased, plus the cost of commercial drying and storage and the estimated value of home-raised seed

Table 2. — Average Cost per Tillable Acre To Grow Corn and Soybeans on Central Illinois Farms With No Livestock

	Corn		Soybeans	
	1973	1974	1973	1974
Number of farms	411	434	411	434
Acres grown per farm	263	291	279	231
Yield per acre, bu.	130	103	40	31
Variable costs				
Soil fertility	$ 26	$40	$ 9	$ 12
Seed, crop, and drying	15	22	15[a]	18
Repairs, fuel, and hire	14	16	12	14
Total, variable costs	$ 55	$ 78	$ 36	$ 44
Other costs				
Labor	$ 18	$ 19	$ 18	$ 19
Building and storage	5	6	3	4
Machinery depreciation	15	18	13	16
Taxes	12	12	12	12
Interest (bare land)	43	58	43	58
Interest(nonland)	14	21	11	19
Overhead	5	6	5	6
Total, other costs	$112	$140	$105	$134
Total, all costs	$167	$218	$141	$178
Cost per bushel	$ 1.28	$ 2.11	$ 3.53	$ 5.73

[a] Revised.

used. Total unpaid labor charge was based on the labor available. The interest charge on bare land was based on a value of $860 per acre in 1973 and $1,156 per acre in 1974. The nonland interest rate was 8 percent in 1974 and 7 percent in 1973 of the inventory value of crops on hand and the remaining capital cost of machinery and buildings.

Hog farms. Farm and family earnings on northern Illinois hog farms (340-499 acres) in 1974 averaged $43,642 with operator and landlord shares combined (Table 3). This is $39,524 below 1973 earnings but near the 1970-1974 average. Most of this decrease resulted from 23 percent lower corn yields and reduced quantities of both grain and livestock inventoried. Average selling price for all pork sold was $4.90 lower than in 1973, but cash operating expenses averaged 12 percent higher.

High feed costs resulted in only 128 litters farrowed in 1974 compared with 141 in 1973. Earnings on this type of farm have gone from a record low in 1970 to a record high in 1973 and back to the 1970-1974 average in 1974. The 1970-1974 average management return of

Table 3. — Average Selected Total Farm Items on 340- to 499-Acre Northern Illinois Grain, Hog and Beef Farms

	Grain farms			Hog farms			Beef farms		
	1974	1973	1970–74 average	1974	1973	1970–74 average	1974	1973	1970–74 average
Number of farms	690	657	581	139	117	137	58	53	68
Total acres	420	421	420	410	409	409	413	402	407
Soil-productivity rating[a]	86	86	84	79	79	78	83	82	81
Total cash sales	$103,535	$84,285	$71,126	$136,792	$144,425	$106,882	$181,465	$198,798	$156,500
Less purchased feed and livestock	6,280	9,390	7,110	41,614	48,940	34,144	81,824	134,227	91,857
Net cash sales	97,255	74,895	64,016	95,178	95,485	72,738	99,641	64,571	64,643
Inventory change	15,412	27,093	11,485	386	35,457	10,754	−26,486	34,918	8,080
Farm products consumed	172	193	154	411	430	329	706	665	566
Value of farm production	112,839	102,181	75,655	95,975	131,372	83,821	73,861	100,154	73,289
Cash operating expenses	33,997	27,044	24,732	40,187	35,887	30,937	39,976	33,797	30,741
Annual depreciation	9,090	7,860	7,108	12,146	12,319	10,203	12,638	11,958	10,600
Farm and family earnings	**69,752**	**67,277**	**43,815**	**43,642**	**83,166**	**42,681**	**21,247**	**54,399**	**31,948**
Unpaid labor charge	7,870	7,164	6,520	8,795	7,986	7,330	8,769	7,639	7,105
Returns to capital and management	61,882	60,113	37,295	34,847	75,180	35,351	12,478	46,760	24,843
Interest charge on capital	29,860	21,445	19,485	30,287	22,254	20,104	38,054	27,209	24,822
Management returns	**32,022**	**38,668**	**17,810**	**4,560**	**52,926**	**15,247**	**−25,576**	**19,551**	**21**
Total cash income[b]	104,069	84,660	71,455	137,141	144,636	107,162	181,816	199,310	156,961
Total cash expenditures[b]	56,487	49,587	42,037	101,860	105,756	79,471	138,217	190,934	137,427
Cash balance	47,582	35,073	29,418	35,281	38,880	27,691	43,599	8,376	19,534
FARM INVESTMENT									
Livestock inventory	$ 9,649	$ 9,363	$ 8,296	$ 51,809	$ 42,877	$ 36,376	$110,169	$ 99,281	$ 80,629
Grain inventory	61,402	36,806	35,595	48,285	29,007	29,456	50,474	30,205	32,419
Remaining capital cost in:									
Machinery and auto	20,695	17,283	16,902	25,100	21,400	20,942	27,552	21,262	22,232
Buildings and fence	17,588	17,813	17,081	34,159	34,892	31,164	45,598	44,757	39,991
Soil fertility	8	9	15	2	1	8	49	90	45
Value of land (current basis)	422,261	315,106	301,202	350,736	265,629	255,651	386,923	270,338	271,331
Total farm investment	531,602	396,380	379,090	510,091	393,806	373,597	620,765	465,933	446,647

[a] Adjusted in 1971. See Illinois Extension Circular 1016, Productivity of Illinois Soils.
[b] Includes sales or purchases of capital items.

$15,247 ranks this type of farm only $2,563 below the same size of grain farm in total farm profits for this 5-year period.

Beef farms. Farm and family earnings on northern Illinois beef farms (340-499 acres) in 1974 averaged $21,247 with operator and landlord shares combined (Table 3). This is less than half the 1973 earnings and $10,701 below the 1970-1974 average.

Cash operating expenses were 19 percent higher in 1974 than in 1973. These farms were located in areas with some of the lowest crop yields due to late planting and early frost. Selling prices for fed cattle averaged $2.71 per hundredweight lower than in 1973. These facts combined with 40-percent higher interest charges on capital invested resulted in the lowest management returns for profit ever recorded for this size and type of farm in one calendar year. The 1970-1974 average return for management of $21 for this type farm indicates little or no residual returns left above cost for all resources used. Each farm produced beef equivalent to 308 feeder cattle (500 pounds of gain per head) in 1974.

Dairy farms. Farm and family earnings on 300-acre northern Illinois dairy farms in 1974 averaged $25,042 with operator and landlord shares combined (Table 4). This is $6,980 below 1973 earnings but slightly above the last 5-year average.

The $1.33-per-hundredweight higher price received for milk sold was more than offset by 33-percent higher feed cost, 14-bushel-per-acre lower corn yields due to early frost, lower beef prices, and 18 percent higher cash operating expenses.

The 1970-1974 average return for management of $504 barely covers cost for all resources used. Since 1971 the number of milk cows per farm has fluctuated between 50 and 52 cows.

Table 4. — Average Selected Total Farm Items on 260- to 339-Acre Northern Illinois Dairy Farms

	1974	1973	1970–74 average
Number of farms	50	46	43
Total acres	296	295	294
Soil-productivity rating[a]	74	72	72
Total cash sales	$ 77,540	$ 68,246	$ 61,336
Less purchased feed and livestock	18,035	14,415	12,373
Net cash sales	59,505	53,831	48,963
Inventory change	3,743	10,389	4,993
Farm products consumed	548	648	511
Value of farm production	63,796	64,868	54,467
Cash operating expenses	29,190	24,570	23,153
Annual depreciation	9,564	8,276	7,917
Farm and family earnings	25,042	32,022	23,397
Unpaid labor charge	10,737	9,588	8,641
Returns to capital and management	14,305	22,434	14,756
Interest charge on capital	21,223	15,154	14,252
Management returns	−6,918	7,280	504
Total cash income[b]	77,728	68,411	61,618
Total cash expenditures[b]	64,877	54,759	47,736
Cash balance	12,851	13,652	13,882
FARM INVESTMENT			
Livestock inventory	$ 31,358	$ 26,453	$ 23,485
Grain inventory	22,055	16,388	16,955
Remaining capital cost in:			
Machinery and auto	20,455	16,525	16,736
Buildings and fence	39,133	34,686	34,526
Soil fertility	...	...	4
Value of land (current basis)[a]	243,652	171,406	170,534
Total farm investment	356,653	265,458	262,240

[a] Adjusted in 1971. See Illinois Extension Circular 1016, Productivity of Illinois Soils.
[b] Includes sales or purchases of capital items.

Southern Illinois farms

Grain farms. Farm and family earnings on southern Illinois grain farms (340-499 acres) averaged $49,605 in 1974 with operator and landlord shares combined (Table 5). This was the highest earning year on record, but total costs including interest charges increased more than the returns during 1974.

Crop yields were down about 17 percent from 1974 while cash operating expenses increased 30 percent. Average selling prices for all grain crops during 1974 were about $1.00 per bushel higher than for 1973. These higher prices offset the effect of the lower yields and higher operating expense.

Hog farms. Farm and family earnings on southern Illinois hog farms (340-499 acres) in 1974 averaged $34,715 with operator and landlord shares combined (Table 5). This is 49 percent below the record high 1973 earnings but still above the $30,644 average for the past 5 years.

Changes in costs, prices received for grain, and crop yields from 1973 to 1974 on hog farms were similar to those of other farm types in this area. The 12-percent drop in price of pork sold during 1974 combined with a 23-percent increase in feed costs to hogs contributed to the lower earnings. The long-run earnings on this size and type of farm are slightly higher, but much more variable, than on the same size of grain farm in southern Illinois.

Dairy farms. Farm and family earnings on 300-acre southern Illinois dairy farms in 1974 averaged $35,368 (Table 5). This is only $835 below the 1973 earnings. But 36-percent higher interest charges due to increased interest rate and higher land values reduced management return to about the 1970-1974 average.

The 20-percent higher milk price in 1974 helped recover the 33-percent increase in operating expenses. Earnings on this type of farm have been relatively stable compared with earnings for other farm types. Management return has also been higher on southern Illinois dairy farms than on northern Illinois farms of similar size and type. This is largely a result of more rapid increase in size of herds in this particular sample of farms, slightly higher milk prices, and lower total investment per farm.

Table 5. — Average Selected Total Farm Items on 340- to 449-Acre Southern Illinois Grain and Hog Farms and 260- to 339-Acre Dairy Farms

	Grain farms			Hog farms			Dairy farms		
	1974	1973	1970–74 average	1974	1973	1970–74 average	1974	1973	1970–74 average
Number of farms	133	94	85	44	35	49	37	18	30
Total acres	417	421	416	406	416	415	298	307	299
Soil-productivity rating[a]	63	60	55	59	56	53	59	59	53
Total cash sales	$80,502	$61,876	$53,860	$106,132	$95,999	$81,205	$89,696	$71,173	$61,985
Less purchased feed and livestock	8,466	9,062	6,918	31,985	33,275	26,701	21,985	19,027	13,545
Net cash sales	72,036	52,814	46,942	74,147	62,724	54,504	67,711	52,146	48,440
Inventory change	12,076	16,925	7,798	−445	20,712	6,532	6,142	14,228	6,181
Farm products consumed	258	305	211	490	476	362	671	537	512
Value of farm production	84,370	70,044	54,951	74,192	83,912	61,398	74,524	66,911	55,133
Cash operating expenses	26,852	20,458	19,135	30,604	24,038	22,907	29,650	22,211	21,426
Annual depreciation	7,913	6,098	6,100	8,873	8,009	7,847	9,506	8,497	7,958
Farm and family earnings	**49,605**	**43,488**	**29,716**	**34,715**	**51,865**	**30,644**	**35,368**	**36,203**	**25,749**
Unpaid labor charge	8,039	7,413	6,400	9,304	8,288	7,395	10,701	10,120	7,956
Returns to capital and management	41,566	36,075	23,316	25,411	43,577	23,249	24,667	26,083	17,793
Interest charge on capital	19,606	12,327	11,707	19,766	13,570	12,581	16,882	12,371	10,731
Management returns	**21,960**	**23,748**	**11,609**	**5,645**	**30,007**	**10,668**	**7,785**	**13,712**	**7,062**
Total cash income[b]	80,669	61,952	54,003	106,908	96,345	81,471	90,185	71,673	62,229
Total cash expenditures[b]	48,495	40,415	33,985	77,182	72,218	59,748	72,792	55,027	46,135
Cash balance	32,174	21,537	20,017	29,726	24,127	21,723	17,393	16,646	16,094
FARM INVESTMENT									
Livestock inventory	$12,271	$10,238	$ 8,489	$39,790	$25,906	$25,457	$34,812	$26,992	$22,727
Grain inventory	35,235	18,043	18,494	34,549	26,336	20,661	23,069	13,563	13,504
Remaining capital cost in:									
Machinery and auto	18,755	13,313	15,428	20,929	31,562	34,354	22,465	21,637	20,336
Buildings and fence	10,197	7,404	8,923	14,195			25,837	21,967	20,043
Soil fertility	22	15	30	22	31		0	7	19
Value of land (current basis)	269,757	177,926	172,498	220,142	154,024	148,637	167,743	129,579	114,792
Total farm investment	346,237	226,939	223,862	329,627	237,859	229,109	273,926	213,745	191,421

[a] Adjusted in 1971. See Illinois Extension Circular 1016, Productivity of Illinois Soils.
[b] Includes sales or purchases of capital items.

LIVESTOCK ENTERPRISES

Table 6 shows the return per $100 feed fed to various livestock enterprises and the price of corn during each of the past 15 years. Fifteen-year and 5-year averages are also shown. The difference between the average return figure and $100 feed cost represents the margin available to pay labor, depreciation on equipment, cash expenses other than feed, and interest on investment, and also to provide for profit.

The margin needed to cover nonfeed costs varies with the kind of livestock and depends on the proportion of total production costs represented by feed. The 15-year averages (1960-1974) represent the approximate level of returns at which farmers have been willing to maintain livestock production. This average may not represent break-even return on all farms because some farmers may discount market prices for some resources used in producing livestock. If a farmer already has facilities for livestock, he need only cover operating costs to continue production. However, when he views livestock production as a new or long-run enterprise, he hopes to cover all costs — fixed and variable — or he may not undertake the enterprise.

As individual farmers try to increase profits, they tend to curtail livestock production when return per $100 of feed fed is below the 15-year average. This tendency on the part of producers causes supplies of livestock products to fluctuate.

Feeder-cattle returns vary greatly from year to year. Long-run average returns shown here indicate that the cattle-feeding business is not paying average market rates for all resources used (Table 7). Above-average skills are needed in buying, selling, and feeding to meet competition of other uses for time and money on farms feeding cattle. It is difficult to identify cyclic income movements over a 15-year period in the beef-cattle industry because it is more complex and adjusts more slowly than other livestock enterprises.

Dairy- and beef-herd enterprise 10-year average

Table 6. — Return per $100 Feed Fed to Different Classes of Livestock

Year	Beef-cow herds	Dairy-cow herds	Feeder cattle bought	Native sheep raised	Feeder pigs	Hogs	Poultry	Yearly price of corn
				Dollars				
1960	129	200	117	108	143	164	157	1.03
1961	139	196	116	110	132	164	150	1.01
1962	149	190	148	126	129	159	144	.98
1963	117	171	88	126	108	131	141	1.11
1964	107	174	112	124	122	142	141	1.12
1965	127	174	151	143	176	210	143	1.15
1966	132	190	117	129	140	178	168	1.23
1967	138	199	119	117	123	154	128	1.17
1968	156	210	142	133	134	170	167	1.02
1969	162	205	152	146	171	212	203	1.14
1970	150	199	118	128	104	142	186	1.26
1971	180	200	156	122	122	150	135	1.27
1972	208	212	161	134	171	214	134	1.16
1973	184	177	120	123	161	192	151	2.00
1974	41	138	64	94	108	121	125	3.00
Averages								
1960–74	141	189	125	124	136	167	152	1.31
1960–64	128	186	116	119	127	152	147	1.05
1965–69	143	196	136	134	149	185	162	1.14
1970–74	153	185	124	120	133	164	146	1.74

Table 7. — Variation in Return to Livestock Enterprise Units, 1965–1974

Year	Hogs (litters)	Feeder pigs (175-lb. gain)	Feeder cattle (500-lb. gain)	Dairy cattle (cow)	Beef herd (cow)[a]	Poultry laying flock (hen)
			Return above cost of feed and purchased animals			
1965	$204	$14.84	$47	$216	$30	$1.71
1966	162	8.20	17	292	39	2.75
1967	107	4.29	18	314	43	1.28
1968	127	6.19	39	350	60	2.26
1969	217	14.25	50	361	70	3.03
1970	86	.88	19	370	58	2.73
1971	106	5.05	61	389	87	1.10
1972	242	14.51	64	446	123	1.05
1973	322	22.31	35	438	128	2.61
1974	100	3.75	−79	282	−117	1.51
10-year ave.	167	9.43	27	346	52	2.00
			Nonfeed cost 1965-1974			
Direct cash[b]	$ 30	$ 1.46	$ 9	$ 94	$13	$ .40
Other costs[c]	103	4.68	30	343	83	1.65
Total	133	6.14	39	437	96	2.05
			Nonfeed cost for future expansion[c]			
Direct cash	$ 39	$ 1.75	$10	$101	$ 14	
Other costs	146	8.42	40	514	102	
Total	185	10.17	50	615	116	

[a] Feed cost for beef herds includes up to $40 of hay equivalent from salvage roughage.
[b] Includes veterinary costs, taxes on equipment and livestock, fuel and equipment repair costs, and other direct cash expenses, from Table 6, Farm Management Manual, January, 1975, AE-4367.
[c] Estimates of annual nonfeed costs are based on enterprise cost studies of operative units in 1965–1974.

returns above cost of feed are below the margin needed to cover all nonfeed costs (Table 7). The implication is that these enterprises compete most favorably on farms where there are plentiful labor, capital, and management resources that have few alternative uses. In 1974 the return was considerably below the 10-year average return above cost of feed. The dairy enterprise had a return of $282 per cow above cost of feed while the beef cow enterprise had a negative return of $117 per cow.

The cyclical pattern of hog production is more easily identified (Table 7). Return tends to exceed the 10-year average for one or two years and then drop below the average for one or two years. The 10-year average hog return above all costs (both feed and nonfeed) is $34 per litter ($167 minus $133) or $2 per 100 pounds produced.

Raising livestock is becoming more competitive. Average profit margins are narrow. Nonetheless, large numbers of farmers are willing to stay in business as long as their return covers only operating cost. Expansion plans involving large investments for new facilities should be based on an estimated return that is high enough to cover all costs. Fluctuations in livestock returns can involve a risk in low-return years.

Hog enterprises

The information in Table 8 is based on a sample of 905 farms farrowing 10 or more litters per year. Farms were omitted from the sample if the number of hogs purchased exceeded 10 percent of the pigs weaned.

Table 8. — Hog Enterprises, 1974

	All farms	Litters farrowed	
		10–49	200+
Number of farms	905	313	109
Average per farm			
Pork produced, lb.	179,968	56,808	535,696
Total return	$ 60,123	$18,347	$181,540
Value of feed fed	$ 49,335	$15,948	$145,027
Return per $100 feed fed	$ 121	$ 115	$ 125
Return above feed per litter	$ 100	$ 79	$ 107
Number of litters farrowed	107	30	339
Pigs farrowed per litter	9.0	8.9	9.0
Pigs weaned per litter	7.2	7.2	7.0
Number of pigs weaned	770	218	2,397
Number that died after weaning	38	9	138
Death loss, percent of lb. produced	1.7	1.5	1.8
Weight per hog sold, lb.	238	245	235
Price received per 100 lb.	$ 34.91	$ 34.20	$ 35.38
Feed cost per 100 lb. produced	$ 27.41	$ 28.07	$ 27.07
Feed per 100 lb. produced			
Farm grains, lb.	343	356	339
Commercial feed, lb.	83	80	87
Total concentrates, lb.	427	436	426
Pasture (pasture days)	.2	.3	.1
Cost per 100 lb. of commercial feeds	$ 10.69	$ 11.13	$ 10.19
Cost per 100 lb. of concentrates	$ 6.39	$ 6.40	$ 6.33

This eliminated those farms with combined farrowing and feeder-pig operations from the sample. Feeder-pig enterprise information is included in Table 10. The average size of hog enterprises on all record-keeping farms has been increasing at the rate of about four litters per year, from 67 litters (502 pigs weaned) per farm in 1964 to 107 litters (770 pigs weaned) in 1974.

Return per $100 feed fed to hogs was $121 in 1974. The 1974 average price received per 100 pounds of pork sold decreased $4.90 from 1973. Feed cost to produce 100 pounds of pork increased from $22.31 in 1973 to $27.41 in 1974. Feed conversion per 100 pounds of gain remained relatively stable. The higher price of corn was partially offset by lower protein supplement prices.

The 1974 hog-enterprise records reported in Table 8 were also sorted by the number of litters produced. One group farrowing between 10 and 49 litters averaged 30 litters, while the group farrowing 200 or more litters averaged 339 litters. Feed cost per 100 pounds of pork produced was $1.00 higher for the 30-litter group than for the 339-litter group. There was no significant difference in feed conversion between the two groups, but the small producers paid about $19 more per ton of commercial feeds. Prices received (net at the farm) for hogs sold by the larger producers were $1.18 higher than those received by the smaller producers.

The 10-year average return above feed cost per litter shown in Table 7 is $167, which is $67 above the 1974 returns. On the basis of detailed cost records, an average farmer with existing facilities would have required returns above feed cost of $133 per litter to pay for all nonfeed costs during the past ten years. One litter in this period was equivalent to 16.5 hundredweight with nonfeed cost of $8.06 per 100 pounds produced.

A substantial profit margin is required to compensate farms for the risk and detailed management involved in hog production compared with other uses for the same resources. Large-scale hog production in modern confinement facilities requires large capital investments. The future recovery of the capital is uncertain and the salvage value of confinement hog facilities is low. Also, the acquisition of the managerial skills necessary for producing a large volume of hogs in confinement may discourage any rapid expansion of the large hog-producing units.

The data in Table 9 show a detailed breakdown of 1973 and 1974 costs and returns for the hog enterprise on a selected group of specialized commercial hog farms. The producers in this group represent a high level of management, using mostly confinement systems of hog production.

These enterprises averaged 446 litters per farm weaning 7.2 pigs per litter in 1973 and 349 litters weaning 7.5 pigs per litter in 1974. In 1974, feed cost averaged 25 percent higher per 100 pounds produced, nonfeed cost 14 percent higher, and total return 15 percent lower than in 1973. It is estimated that it would take about $185 return above feed per litter or $11.20 per hundredweight (Table 7) to recover all nonfeed costs from new facilities erected at current prices.

Feeder-cattle and feeder-pig enterprises

Calendar-year operations for feeder-cattle and feeder-pig enterprises are presented in Table 10. These enterprise summaries involve weights and values on partly finished animals purchased in prior years as well as on animals purchased in the current year.

Pork produced per farm from feeder-pig enterprises was 81,373 pounds in 1974 (Table 10). In units of 175 pounds produced per head, this amounted to 465 head fed per farm in 1974, compared with 484 head in 1973.

Return above the cost of feed and purchased animals shown in Table 7 for 1965 through 1974 averaged $9.43 per unit of 175 pounds of gain. This compares with the

Table 9. — Costs and Return for the Sow and Litter Enterprise, Selected Commercial Hog Farms, 1973 and 1974

	Per 100 lb. of pork produced	
	1973	1974
Total return	$41.59	$35.28
Feed costs	20.52	25.70
Return above feed costs	$21.07	$ 9.58
Nonfeed costs		
Buildings	$ 1.29	$ 1.49
Machinery and equipment	2.23	2.65
Labor	2.93	2.65
Livestock expense	.81	1.25
Insurance and taxes	.34	.38
Interest charge on all capital	1.89	2.45
Overhead	.17	.13
Total nonfeed costs	$ 9.66	$11.00
Total all costs	$30.18	$36.70
Return above all costs	$11.41	$−1.42

Table 10. — Feeder-Cattle and Feeder-Pig Enterprises, 1974

	Feeder cattle	Feeder pigs
Number of farms	385	140
Average per farm		
Total produced, lb.	103,840	81,373
Total return	$ 30,483	$22,537
Value of feed fed	$ 46,958	$20,792
Return per $100 feed fed	$ 64	$ 108
Death loss, percent of lb. produced	2.7	2.3
Average weight purchased, lb.	574	54
Price paid per 100 lb.	$ 36.79	$ 51.63
Average weight sold, lb.	1,042	229
Price received per 100 lb.	$ 41.40	$ 35.11
Feed cost per 100 lb. produced	$ 45.22	$ 25.55
Feed per 100 lb. produced		
Grain, lb.	563	335
Protein and mineral feeds, lb.	52	71
Total concentrates, lb.	616	406
Hay, lb.	67	...
All silage, lb.	1,067	...

estimated return of $6.14 required to cover all of the nonfeed costs for the past 10 years and the $10.17 required to consider future expansion.

Assuming a 500-pound unit of gain equals one head of feeder cattle, the 103,840 pounds of beef produced per farm in 1974 (Table 10) are equal to 208 head. This is an increase of 29 head above the 179 head of cattle fed per farm in 1971. Return per $100 feed fed for feeder-cattle enterprises was $64 in 1974 compared with $120 in 1973 and $125 for the 15-year average (Table 6). A sharp decline in feeder-cattle inventory prices contributed to the lower return in 1974.

The price paid for feeders purchased was $15.16 per 100 pounds lower in 1974 than in 1973, while the price received for cattle sold in 1974 was $2.71 lower. Average weight purchased and sold remained steady at 574 and 1,042 pounds per head. The feed cost was $45.22 per 100 pounds produced in 1974 compared with $33.88 in 1973, reflecting a 50-percent increase in the price of corn.

Concentrates used per 100 pounds of beef produced decreased 79 pounds in 1974, while the pounds of hay used remained about steady at 67 pounds. The amount of silage used increased 118 pounds in 1974, resulting in the use of 2.3 times more silage in 1974 than in 1960. The end result of this shift has been increased production and utilization of crops from a fixed land resource. Mechanization of the silage-feeding operation has also reduced labor per unit of production.

These data do not show the wide variation in profits that exists among the cattle-feeding programs. Tables 6, 7, and 10 reflect the composite results of all types of feeder-cattle enterprises in Illinois as to quality and age of cattle fed. The data reported are heavily weighted with good-to-choice calves and yearlings as the predominant cattle-feeding systems. Many farmers are now feeding more than one drove of cattle each year to provide better utilization of fixed investments in mechanized feedlots.

Return above cost of feed and purchased animals shown in Table 7 averaged $27 for each head of feeder-cattle gaining 500 pounds for the 10 years from 1965 through 1974. During this period, these returns have ranged from −$79 in 1974 to $64 in 1972. In 5 of the past 10 years, return above feed cost has been equal to or above the estimated $39 per feeder required to pay for all nonfeed costs for the average cattle feeder.

The direct cash costs, exclusive of feed and interest costs, associated with cattle feeding average about $9 per feeder. Return above feed cost has exceeded these direct cash costs per head in all of the past 10 years except in 1974 when the return was a negative $79.

A large but declining number of cattle feeders in Illinois are apparently willing to feed cattle if their return is sufficient to cover feed and cash costs but is short of paying average market rates for some of the fixed and farm overhead costs.

Farmers' values, goals, and attitudes have been important in maintaining production on the one hand, while the dictates of the market, technological change, and shifts in basic supply and demand factors are causing the need for change on the other hand. The returns reflected in this average of all feeder-cattle enterprises would suggest that for cattle feeding to be profitable, farmers must produce the kind of beef the consumer wants at the lowest possible cost. Farmers considering expansion of this enterprise on farms where there are no nonmarketable feeds, unemployed labor, or fixed capital investments should budget carefully before they make new investments.

Dairy enterprises

The minimum size of herd included in this analysis was 10 milk cows. The average size of dairy herd on record-keeping farms has increased at the rate of about two cows per year since 1970.

Return per $100 of feed fed to dairy enterprises in 1974 was $138 and averaged $185 for the 1970-1974 period (Table 6). Milk prices increased $1.33 per

Table 11. — Dairy Cattle Enterprises, 1974

	Pasture days per animal unit		
	All farms	0	120 or more
Number of farms	293	136	36
Average per farm			
Number of milk cows	50.6	56.1	39.5
Percent of milk cows dry	14.8	14.7	14.9
Animal units in herd	95	108	69
Beef produced, lb.	27,861	30,407	20,724
Total return	$51,746	$56,805	$39,351
Value of feed fed	$37,440	$42,493	$26,472
Return per $100 feed fed	$ 138	$ 133	$ 148
Return above feed per milk cow	$ 282	$ 255	$ 326
Total milk produced, lb.	599,600	662,500	449,800
Milk per milk cow, lb.	11,849	11,809	11,387
Butterfat per milk cow, lb.	450	436	433
Beef per cow in herd, lb.	550	542	524
Death loss, percent of lb. produced	10.1	11.2	11.7
Feed cost per unit[a]	$ 42.63	$ 43.96	$ 40.28
Price received for:			
100 lb. milk	$ 7.82	$ 7.82	$ 7.88
100 lb. beef	$ 30.35	$ 29.84	$ 31.46
Feed per unit of milk and beef:			
Grain, lb.	336	335	325
Protein and minerals, lb.	81	86	73
Total concentrates, lb.	417	422	399
Hay and dry roughage, lb.	271	248	353
Hay silage and soilage, lb.	391	444	152
Corn and other silage, lb.	904	1,005	648
Pasture (pasture days)	3	...	15
Pasture days per animal unit	32	...	151

[a] 1,000 lb. of milk or 100 lb. of beef.

hundredweight of milk sold, beef prices decreased $7.09 per 100 pounds of beef, and feed costs increased $10.46 per production unit (1,000 pounds of milk or 100 pounds of beef) in 1974 as compared with 1973.

Dairy farmers have reduced the amount of pasture and increased the amounts of grain and silage fed. Pasture days per unit (1,000 pounds of milk or 100 pounds of beef) remained at 15 days prior to 1959, but since 1960 have declined to 3 days in 1973 and 1974.

The dairy herds in Table 11 were subdivided into two groups: herds with no pasture days per animal unit and herds with 120 days or more. Each year a few more farmers have been adopting the practice of feeding cows in drylot. Dairy herds with no direct grazing averaged 56.1 cows per farm compared with 39.5 cows per farm where a full pasture program was used.

The main difference among these two groups of dairy herds is the amount of land required per cow to produce roughage. When pasture and hay yields are figured at 150 pasture days and 3 tons per acre respectively, farms with drylot feeding required only 1.1 acres per cow to produce grass-legume forages, while farms with over 120 pasture days per animal unit used 2.8 acres. Additional roughage was obtained through the corn silage on the nongrazing farms.

Part of the additional cost of harvesting roughage to be fed in drylot is included in the price charged for feed. During the 5-year period 1969-1973, the herds in drylot averaged $29 more return above the cost of feed per milk cow than the herds with over 120 pasture days per animal unit. In 1974 the higher prices for corn, protein feeds, and roughages were the major factor causing the return above cost of feed per cow in the drylot herds to be $71 below that for the herds using the full pasture program. Farmers using the drylot system must relate the higher cost of labor and machinery to the increased returns that may result from the following factors: shifting land from pasture to grain crops; an increase in size of dairy herd with fixed acres of hay and pasture; or higher production per cow.

Return above the cost of feed for all dairy herds was $282 per cow in 1974 (Table 11). This compares with the 10-year average of $346 (Table 7). The 10-year average return above feed cost required to pay market prices for all nonfeed costs is estimated to be about $437 per cow. The estimated return above feed cost required currently to attract new investments for dairy herds is about $615 per cow.

Beef-cow herds

The minimum size of a beef-cow herd included in Table 12 was 10 or more cows. Farms with combinations of cow herds and purchased feeder cattle were not included. In addition to all farms, Table 12 shows an analysis of cow herds where calves were sold at weaning time, comparing them with those where calves were finished to slaughter weights. For the period 1956 to 1969, the average size of cow herd on all farms ranged from 25 to 30 cows. Since 1969 the average herd has grown at the rate of about two cows per year to an average of 40 cows per herd in 1974. Most Illinois farmers who maintain a beef-cow herd do so as a supplemental enterprise to market nonsalable feeds and labor.

Table 12. — Beef-Cow Enterprises, 1974

	All farms	Calves sold	Calves fed out
Number of farms	525	268	207
Average per farm			
Number of cows in herd	40	40	40
Animal units in herd	73	57	98
Total produced, lb.	23,801	20,652	28,884
Total return	$ 3,367	$ 1,944	$ 5,438
Value of feed fed	$ 8,066	$ 6,046	$10,935
Return per $100 feed fed	$ 41	$ 32	$ 49
Beef per cow in herd, lb.	595	516	722
Death loss, lb.	1,481	1,486	1,490
Percent of lb. produced	6.2	7.2	5.1
Feed cost per unit[a]	$ 33.88	$ 29.27	$ 37.85
Price received per 100 lb.	$ 37.26	$ 35.24	$ 38.90
Feed per unit of milk and beef[a]			
Grain, lb.	217	105	319
Protein and mineral feeds, lb.	41	38	44
Total concentrates, lb.	259	144	364
Hay and dry roughage, lb.	520	513	519
Hay silage, lb.	42	58	27
Corn and other silage, lb.	294	271	297
Pasture (pasture days)	42	52	34

[a] 1,000 lb. of milk or 100 lb. of beef.

Return per $100 feed fed to beef-cow herds in 1974 averaged $41, compared with $184 in 1973. Return for the 5-year period 1970-1974 averaged $153, which was $12 above the 15-year (1960-1974) average (Table 6). Beef prices in 1974 averaged $37.26 compared with $43.07 in 1973, while feed costs increased from $26.90 to $33.88. A sharp decline in beef-cow inventory prices also contributed to the low returns in 1974.

The added return for feeding-out calves over selling calves at weaning has averaged $4 per cow for the period 1970 to 1974. The additional return is for the added costs of labor, buildings, and capital required to feed out calves. The 1974 return reduced this 5-year average added return for the fed-out program considerably.

Poultry enterprises

The minimum size of flock included in Table 13 is 200 hens. Table 13 shows an analysis of poultry flocks ranging in size from 200 to 999 hens and of flocks with over 2,000 hens. The smaller farm flocks averaged 425

hens and the larger commercial flocks 10,284 hens. Poultry in Illinois is rapidly being concentrated in fewer but larger and industrialized operations.

Farms with over 2,000 hens used 5.1 pounds of feed concentrates per dozen eggs produced or per 1.5 pounds of weight produced. For 1974 the feed cost per dozen eggs was 32 cents. Egg prices decreased from 51 cents in 1973 to 49 cents in 1974.

Flocks with over 2,000 hens had return above feed costs per hen of $1.51 in 1974 compared with the 10-year average of $2.00 (Table 7).

Sheep enterprises

Sheep production is a minor enterprise on Illinois record-keeping farms. The minimum size of enterprise in Table 14 is three animal units. One animal unit of sheep is defined as 750 pounds of liveweight. Return per $100 feed fed in 1974 was $94 for native flocks. Pounds of wool and mutton produced per farm have remained fairly constant for the past 10 years. Most Illinois farmers who keep sheep do so as a supplemental enterprise to market nonsalable feeds and labor.

Table 13. — Poultry Enterprises, 1974

	Number of hens per farm	
	200–999	2,000 and over
Number of farms	18	15
Average per farm		
Poultry produced, lb.	816	2,461
Total return from poultry	$3,363	$76,455
Total value of feed fed	$3,087	$60,875
Return above feed cost per hen	$ .65	$ 1.51
Return per $100 feed fed	$ 108	$ 125
Average number of hens	425	10,284
Eggs produced per hen	188	217
Percent production	51.6	59.7
Feed units[a]	7,218	188,374
Feed cost per unit[a]	$ .43	$ .32
Concentrates per feed unit, lb.[a]	6.6	5.1
Cost per 100 lb. of concentrates	$ 6.47	$ 6.29
Price per dozen eggs sold	$ .52	$ .49

[a] One dozen eggs or 1.5 lb. of weight produced.

Table 14. — Sheep Enterprises, 1974

	Native flocks
Number of farms	104
Average per farm	
Wool and mutton produced, lb.	3,329
Total return	$1,114
Value of feed fed	$1,177
Return per $100 feed fed	$ 94
Percent lamb crop	112
Death loss, lb.	686
Death loss, percent of lb. produced	20.6
Feed cost per 100 lb. produced	$ 35.36
Price received per 100 lb.	$ 33.79
Feed per 100 lb. produced	
Concentrates, lb.	323
Hay, lb.	540
Silage, lb.	300
Pasture (pasture days)	36

DEFINITION OF TERMS AND ACCOUNTING METHODS

Soil-productivity rating

This is an average index representing the inherent productivity of all tillable land on the farm. Individual soil types on each farm are assigned an index ranging downward from 100. All ratings were revised in 1971 to reflect a basic level of management as outlined in Illinois Extension Circular 1016, Productivity of Illinois Soils, and new land values were assigned. The change in land values represents an accounting adjustment to bring land values to current market levels.

Type of farm

Sampling technique. Data from all records certified for analysis by fieldmen were aggregated by size (acres), type of organization, value of feed fed, and soil-productivity rating. Electronic data processing was used to summarize the data.

Grain farms. Farms where the value of feed fed was *less* than one-half of the feed and grain returns and where value of feed fed to dairy or poultry was not more than one-sixth of the feed and grain returns. Since 1973 the sample of northern Illinois grain farms with SPR 86-100 in Table 16 has essentially excluded farms with livestock.

Hog or beef farms. Farms where the value of feed fed was *more* than one-half of the feed and grain returns and either hog or beef-cattle enterprises received more than one-half of the value of feed fed.

Dairy or poultry farms. Farms where the value of feed fed was *more* than one-half of feed and grain returns and either dairy or poultry enterprises received *more* than one-third of the value of feed fed.

Cost items

Value of feed fed. Includes on-the-farm grains with the following average prices per bushel: corn, $3.00; oats, $1.48; barley, $2.40; wheat, $4.42. Commercial feeds were priced at actual cost, hay and silage at farm values, and pasture at 18 cents per animal unit pasture day. A pasture day represents an intake of ap-

Table 15. — Average Prices Received and Paid by Farm-Record Keepers

	1974		1973	
	Northern Illinois	Southern Illinois	Northern Illinois	Southern Illinois
Grain prices				
Corn sold	$2.74	$2.88	$1.55	$1.74
Soybeans sold	6.10	6.36	4.41	5.01
Wheat sold	4.21	4.19	[a]	3.13
Corn purchased	3.03	3.00	1.72	1.59
Oats purchased	1.61	1.64	.99	1.17
Livestock prices				
Hogs, all weights	$34.91		$39.81	
Fed cattle, all weights	41.40		44.11	
Feeder cattle, all weights, prices paid	36.79		51.95	
Dairy cattle, all weights	30.35		37.44	
Sheep, all weights	33.79		33.10	
Milk	7.82		6.49	
Eggs	.49		.51	

[a] Not available.

proximately 20 to 25 pounds of dry matter. It has been defined as 16 pounds of total digestible nutrients (TDN) from pasture.

Cash operating expenses. Includes annual cash outlays for nondepreciable items of fertilizer, machinery repairs, machine hire, gas and oil, farm share of electricity, telephone, and auto, hired labor, seed and crop expenses, taxes, building repairs, livestock expense, insurance, and miscellaneous expenses. It does not include purchased feed and livestock since these have been deducted from gross receipts in computing the value of farm production. Interest paid is not included since an interest charge is made on the total farm investment.

Machinery and equipment. Includes depreciation, repairs, machine hire, gas and oil, and farm share of electricity, telephone, and auto.

Labor. Includes hired labor plus family and operator's labor charged in 1974 at $625 a month.

Interest charge on capital. Interest charged at 8 percent on the January 1 inventory of remaining capital investment in grain, livestock, machinery and auto, buildings, and soil fertility, plus 5-percent interest on bare land priced at current land values.

Total nonfeed costs. Includes cash operating expenses, depreciation, and charges for unpaid labor and interest. Purchased feeds and livestock are omitted.

Value of land (current basis). A basic value on bare land is established for each farm according to the soil-productivity rating. This basic value is adjusted each year according to the index of land prices in Illinois as reported by the USDA.

Return items

Feed and grain return. The sum of grain and feed sales, value of all feed fed (except milk), and change in value of feed and grain inventories less the value of feed purchased.

Value of farm production. Total cash sales of products and services, less purchased feed and livestock, plus change in inventory values of grain and livestock, plus value of farm products consumed.

Farm and family earnings. Value of farm production less cash operating expenses and depreciation. This figure includes the return to the farm and family for unpaid labor, interest on invested capital, and returns to management.

Labor and management earnings. Farm and family earnings less the value of family labor and interest charge on capital invested. This is the residual return to operator's labor and management efforts.

Capital and management earnings. Farm and family earnings less a charge for all unpaid labor.

Management return. The residual surplus left after a charge for unpaid labor and an interest charge on capital are deducted from farm and family earnings.

Costs, returns, financial summaries, investments, land use, and crop yields for different sizes and types of farms in northern and southern Illinois are reported in Tables 16 to 20a on pages 14 through 23.

Table 16. — Average Costs, Return, and Financial Summary of Grain Farms by Size and Soil Rating, Northern Illinois, 1974[a]

	GRAIN FARMS WITH SOIL RATING 86-100[b]						GRAIN FARMS WITH SOIL RATING 56-85[b]				
Range in size (total acres)	260-339	340-499	500-649	650-799	800-949	950+	260-339	340-499	500-649	650-799	800+
Number of farms	58	213	164	75	46	37	34	96	72	39	50
Size of farm	301	423	567	728	860	1,200	308	424	576	703	1,128
Acres of tillable land	288	408	545	700	819	1,147	291	398	535	654	1,046
Soil rating on till. land	94	94	94	94	94	92	76	77	78	77	77
Beef produced, cwt	2	2	4	7	10	6	3	3	1	8	7
Pork produced, cwt	0	1	1	5	0	1	0	0	1	2	2
DOLLAR COSTS PER FARM											
Soil fertility	$ 7,262	$11,153	$14,609	$20,124	$22,127	$34,364	$ 7,523	$10,336	$13,695	$17,355	$31,774
Buildings and fence	1,528	2,221	2,680	3,289	3,656	5,657	2,267	1,976	3,035	3,157	4,656
Machinery and equipment	10,723	15,305	19,567	24,268	28,449	41,453	12,411	14,880	19,129	22,041	33,166
Labor	7,778	8,849	10,403	12,356	14,385	19,939	8,239	8,342	9,772	12,107	17,462
Taxes	3,645	4,998	6,817	9,318	9,908	13,460	3,260	4,471	5,986	7,137	11,492
Seed and crop expenses	5,262	7,150	10,196	12,809	16,606	24,470	5,235	6,955	10,152	11,270	19,623
Livestock expense	47	58	84	57	60	103	48	86	50	71	215
Insurance and misc. exp	1,130	1,566	1,911	2,425	2,725	3,504	1,466	1,376	1,874	2,140	3,145
Interest on capital	22,152	31,761	42,173	53,708	63,377	87,252	19,708	26,982	36,542	42,706	69,330
Total non-feed costs	59,526	83,061	108,441	138,355	161,294	230,204	60,158	75,402	100,236	117,984	190,862
Total value of feed fed	58	105	165	302	261	343	79	74	128	249	228
DOLLAR RETURNS PER FARM											
Feed and grain returns	$87,546	$123,943	$167,205	$221,885	$248,275	$356,025	$73,941	$103,089	$141,609	$164,478	$290,166
Livestock return above feed	7	- 11	36	- 155	- 15	- 302	- 79	34	- 64	- 84	- 234
Custom work	931	1,027	1,323	2,101	2,129	4,793	550	1,107	1,410	1,720	2,618
Other cash income	1,168	1,212	1,740	1,955	2,317	3,318	739	1,233	1,794	1,764	2,510
Value of farm production	89,651	126,172	170,304	225,786	252,705	363,833	75,151	105,463	144,749	167,878	295,060
Management returns	30,125	43,111	61,863	87,431	91,412	133,630	14,994	30,061	44,513	49,893	104,198
Farm production per $1.00 of non-feed costs	1.51	1.52	1.57	1.63	1.57	1.58	1.25	1.40	1.44	1.42	1.55
Farm production per man	85,923	105,377	123,338	134,735	131,560	136,958	68,733	92,743	111,494	107,641	132,087
FINANCIAL SUMMARY											
Cash sales	$75,580	$104,685	$136,905	$187,790	$209,932	$298,182	$67,083	$91,846	$119,965	$140,552	$244,561
Sales of capital items	268	576	1,217	1,018	880	782	1,391	755	577	2,126	4,745
Total cash income	75,848	105,261	138,122	188,809	210,812	298,964	68,474	92,601	120,542	142,679	249,306
Purchased livestock	50	107	157	331	152	240	217	67	157	70	263
Purchased feed	36	577	699	6,832	2,290	1,378	254	256	325	1,716	2,505
Cash operating expenses	23,978	34,645	46,988	61,941	73,395	107,667	26,427	32,498	44,133	55,450	92,816
Purchase of capital items	11,309	15,669	22,763	29,947	30,382	45,705	16,840	15,934	21,371	27,240	39,495
Total cash expenditures	35,372	50,998	70,608	99,050	106,220	154,990	43,738	48,755	65,985	84,475	135,079
Cash balance	$40,475	$54,262	$67,514	$89,758	$104,591	$143,974	$24,736	$43,845	$54,556	$58,203	$114,226
Inventory change	14,140	22,135	34,211	45,082	45,183	67,226	8,521	13,928	25,247	29,068	53,259
Capital change	4,996	6,028	10,024	14,666	13,420	20,335	8,577	6,670	9,203	13,274	16,534
Farm products consumed	17	36	45	76	33	43	19	12	19	42	8
Farm and family earnings	59,628	82,461	111,794	149,582	163,227	231,578	41,852	64,455	89,024	100,587	184,027
Labor and mgt. earnings	37,399	50,372	69,183	94,683	98,721	140,792	21,758	37,150	51,597	57,153	111,360
Capital and mgt. earnings	52,278	74,872	104,036	141,139	154,789	220,882	34,702	57,042	81,056	92,599	173,528
Capital and mgt. per acre	173.42	177.03	183.63	193.81	179.94	184.14	112.85	134.47	140.74	131.73	153.84

a/ Variations in totals are due to rounding to the nearest dollar.
b/ Value of feed fed to livestock was less than one percent of feed and grain returns.

Table 16a. — Average Operating Costs, Investments, and Land Use of Grain Farms by Size and Soil Rating, Northern Illinois, 1974[a]

	GRAIN FARMS WITH SOIL RATING 86-100[b]						GRAIN FARMS WITH SOIL RATING 56-85[b]				
Range in size (total acres)	260-399	340-499	500-649	650-799	800-949	950+	260-339	340-499	500-649	650-799	800+
Number of farms	58	213	164	75	46	37	34	96	72	39	50
COSTS AND RETURNS PER TILLABLE ACRE											
Soil fertility	$ 25.23	$ 27.31	$ 26.78	$ 28.74	$ 27.01	$ 29.95	$ 25.82	$ 25.99	$ 25.59	$ 26.53	$ 30.37
Buildings and fence	5.30	5.43	4.91	4.69	4.46	4.93	7.78	4.96	5.67	4.82	4.45
Machinery and equipment	37.25	37.48	35.87	34.66	34.73	36.13	42.61	37.42	35.74	33.70	31.70
Labor	27.02	21.67	19.07	17.64	17.56	17.38	28.28	20.97	18.25	18.51	16.69
Value of feed fed	.20	.25	.30	.43	.31	.29	.27	.18	.23	.38	.21
Feed and grain returns	304.17	303.57	306.56	316.92	303.16	310.33	253.86	259.25	264.60	251.49	277.38
Livestock return above feed	.02	- .02	.06	- .22	- .01	- .26	- .26	.08	- .11	- .12	- .22
Value of farm production	311.49	309.03	312.24	322.49	308.56	317.14	258.01	265.22	270.47	256.69	282.06
Total non-feed costs	206.82	203.44	198.82	197.62	196.95	200.66	206.54	189.63	187.30	180.40	182.46
Management returns	104.67	105.59	113.42	124.88	111.61	116.48	51.47	75.59	83.17	76.28	99.60
SELECTED COST ITEMS											
Fertilizer, annual	$ 7,260	$11,152	$14,599	$20,123	$22,125	$34,364	$ 7,523	$10,332	$13,694	$17,355	$31,761
Building repairs	499	619	773	935	1,152	1,876	693	607	910	792	1,487
Building depreciation	1,028	1,602	1,908	2,355	2,504	3,781	1,574	1,369	2,125	2,366	3,168
Mach. and equip. deprec.	5,016	7,463	9,604	11,907	13,577	20,807	5,298	7,137	9,465	9,474	15,035
Mach. repairs, supplies	2,238	3,430	4,474	5,779	6,397	9,852	2,912	3,228	4,182	5,734	8,214
Machinery hire	867	703	1,073	963	1,890	2,025	1,021	1,074	983	1,519	2,206
Gasoline and oil	1,829	2,689	3,358	4,326	5,223	7,231	2,266	2,544	3,259	3,944	5,715
Unpaid labor charge	7,350	7,590	7,758	8,443	8,439	10,696	7,151	7,413	7,970	7,989	10,500
Hired labor charge	428	1,259	2,645	3,913	5,946	9,243	1,088	928	1,802	4,118	6,962
Total months of labor	12.5	14.4	16.6	20.1	23.1	31.9	13.1	13.6	15.6	18.7	26.8
Months of labor hired	.8	2.2	4.2	6.6	9.5	14.8	1.7	1.8	2.8	5.9	10.0
FARM INVESTMENT											
Livestock inventory	$ 255	$ 228	$ 410	$ 743	$ 612	$ 1,038	$ 143	$ 324	$ 310	$ 596	$ 888
Grain inventory	46,172	69,237	91,733	117,526	144,876	190,084	41,362	59,268	80,825	79,675	145,566
Remaining capital cost in											
Machinery and auto	14,313	21,455	28,276	33,592	40,029	55,533	15,505	20,501	25,559	27,544	48,016
Buildings and fence	10,211	14,978	19,069	21,975	22,638	33,582	12,560	15,183	18,136	22,796	36,188
Soil fertility	4	2	20	3	6	0	0	0	3	0	27
Value of land (current)	329,519	465,775	620,239	796,027	934,486	1,296,668	282,851	387,192	531,111	645,135	1,017,506
Total farm investment	400,474	571,675	759,747	969,865	1,142,646	1,576,905	352,421	482,468	655,945	775,747	1,248,190
Total investment per acre	1,328.49	1,351.73	1,341.00	1,331.81	1,328.32	1,314.62	1,146.08	1,137.39	1,138.95	1,103.56	1,106.57
Machinery investment per tillable acre	49.73	52.55	51.84	47.97	48.87	48.40	53.23	51.55	47.75	42.11	45.90
PERCENT OF TILLABLE LAND IN											
Corn and corn silage	52.8	52.3	53.7	54.7	52.6	54.4	54.1	50.7	53.2	51.7	57.0
Soybeans	43.8	43.4	41.7	41.7	44.0	41.2	38.0	42.9	42.1	41.7	37.4
Wheat	.6	1.4	1.6	1.5	.8	2.6	.4	2.3	2.0	2.5	2.8
Other small grains	.0	.3	.2	.3	.1	.3	.9	.5	.3	.0	.5
Diverted acres	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0
All hay and pasture crops	.2	.3	.6	.3	.3	.1	.5	.4	.5	.4	.6
CROP YIELDS, bu. per acre											
Corn	97	101	102	106	100	108	83	83	84	88	96
Soybeans	30	30	30	31	30	31	28	27	27	27	29
Wheat	35	36	38	36	33	37	41	32	39	41	37

a/ Variations in totals are due to rounding to the nearest dollar.
b/ Value of feed fed to livestock was less than one percent of feed and grain returns.

Table 17. — Average Costs, Return, and Financial Summary of Hog Farms by Size and Soil Rating, Northern Illinois, 1974[a]

	HOG FARMS WITH SOIL RATING 86-100					HOG FARMS WITH SOIL RATING 56-85				
Range in size (total acres)...	0-179	180-259	260-339	340-499	500+	0-179	180-259	260-339	340-499	500+
Number of farms.....	22	22	35	36	33	23	46	68	93	115
Size of farm.....	149	225	306	412	701	136	230	303	409	717
Acres of tillable land.....	137	207	276	376	636	121	196	253	333	542
Soil rating on tillable land..	93	93	92	92	91	76	76	75	74	74
Beef produced, cwt.....	64	75	114	140	321	49	125	200	220	413
Pork produced, cwt.....	1,679	1,997	2,662	2,747	4,492	1,893	1,700	1,875	2,206	3,302
DOLLAR COSTS PER FARM										
Soil fertility.....	$ 3,726	$ 5,622	$ 8,174	$ 9,730	$19,518	$ 3,173	$ 4,890	$ 6,360	$ 8,476	$13,958
Buildings and fence.....	3,049	3,769	6,784	6,528	10,553	3,433	3,837	4,113	5,605	9,024
Machinery and equipment.....	9,997	12,586	18,033	20,892	31,650	10,255	12,591	15,116	18,450	27,955
Labor.....	9,063	10,020	11,585	14,058	23,137	10,481	9,566	10,632	11,866	17,932
Taxes.....	2,121	2,700	3,704	5,106	7,604	1,473	2,301	2,695	3,525	6,009
Seed and crop expenses.....	3,076	4,110	5,741	8,171	14,769	2,800	4,061	5,051	6,247	10,899
Livestock expense.....	1,303	1,781	2,727	2,886	5,100	1,950	1,949	1,665	2,825	3,541
Insurance and misc. expense...	1,108	1,356	1,586	2,211	3,345	1,436	1,286	1,527	1,697	2,820
Interest on capital.....	14,423	20,683	29,097	36,660	61,330	13,735	18,787	22,586	28,570	45,906
Total non-feed costs.....	47,866	62,627	87,430	106,243	177,007	48,736	59,265	69,745	87,260	138,045
Total value of feed fed.....	49,275	56,203	76,139	85,394	137,094	57,858	53,062	63,768	72,173	110,774
DOLLAR RETURNS PER FARM										
Feed and grain returns.....	$42,427	$59,098	$82,701	$112,437	$184,931	$27,282	$47,638	$59,753	$77,810	$128,134
Livestock return above feed...	11,218	17,149	16,352	7,997	22,445	12,447	7,028	5,854	5,565	7,435
Custom work.....	192	375	442	488	726	302	371	417	628	990
Other cash income.....	769	1,077	997	1,435	2,252	978	1,145	1,451	1,616	2,373
Value of farm production.....	54,606	77,699	100,492	122,356	210,354	41,009	56,182	67,474	85,619	138,932
Management returns.....	6,740	15,072	13,062	16,113	33,346	- 7,728	- 3,083	- 2,270	- 1,642	887
Farm production per $1.00 of non-feed costs.....	1.14	1.24	1.15	1.15	1.19	.84	.95	.97	.98	1.01
Farm production per man.....	44,923	59,422	64,330	66,723	76,310	30,615	43,344	45,719	52,995	61,462
FINANCIAL SUMMARY										
Cash sales.....	$77,025	$105,317	$141,262	$155,698	$276,718	$87,960	$94,566	$109,692	$130,604	$200,238
Sales of capital items.....	1,974	69	859	330	674	170	161	234	383	551
Total cash income.....	78,998	105,386	142,121	156,028	277,393	88,129	94,727	109,926	130,987	200,789
Purchased livestock.....	2,575	2,541	10,664	8,276	13,591	2,652	5,232	6,995	9,814	15,009
Purchased feed.....	19,290	24,846	34,177	35,785	58,620	39,791	24,433	30,565	32,023	46,474
Cash operating expenses.....	19,894	26,714	36,513	46,605	82,007	20,803	25,074	29,687	38,287	64,091
Purchase of capital items.....	7,430	8,530	25,490	26,097	41,929	7,626	10,350	14,313	18,083	36,120
Total cash expenditures.....	49,190	62,631	106,844	116,964	196,146	70,872	65,090	81,560	98,207	161,694
Cash balance.....	$29,808	$42,755	$35,276	$39,064	$81,246	$17,257	$29,637	$28,366	$32,779	$39,094
Inventory change.....	- 787	- 375	3,796	10,306	5,348	- 4,777	- 9,001	- 5,003	- 3,543	- 296
Capital change.....	- 194	1,270	12,212	12,027	19,269	975	2,418	5,077	6,050	17,356
Farm products consumed.....	234	144	276	413	498	269	283	344	395	472
Farm and family earnings.....	29,061	43,794	51,560	61,810	106,362	13,725	23,336	28,784	35,681	56,627
Labor and management earnings.	14,183	22,458	20,509	23,509	40,932	- 717	4,091	4,963	5,845	8,327
Capital and mgt. earnings.....	21,163	35,755	42,159	52,774	94,904	6,007	15,704	20,315	27,170	46,858
Capital and management earnings per acre.....	142.04	159.20	137.99	128.09	135.33	44.31	68.23	67.14	66.40	65.38

a/ Variations in totals are due to rounding to the nearest dollar.

Table 17a. — Average Operating Costs, Investments, and Land Use of Hog Farms by Size and Soil Rating, Northern Illinois, 1974[a]

	HOG FARMS WITH SOIL RATING 86-100					HOG FARMS WITH SOIL RATING 56-85				
Range in size (total acres)...	0-179	180-259	260-339	340-499	500+	0-179	180-259	260-339	340-499	500+
Number of farms.....	22	22	35	36	33	23	46	68	93	115
COSTS AND RETURNS PER TILLABLE ACRE										
Soil fertility.....	$ 27.19	$ 27.11	$ 29.60	$ 25.87	$ 30.67	$ 26.31	$ 24.89	$ 25.14	$ 25.44	$ 25.75
Buildings and fence.....	22.26	18.17	24.57	17.36	16.58	28.46	19.53	16.26	16.82	16.64
Machinery and equipment.....	72.97	60.69	65.32	55.56	49.74	85.02	64.09	59.78	55.37	51.57
Labor.....	66.15	48.32	41.96	37.38	36.36	86.89	48.69	42.04	35.61	33.08
Value of feed fed.....	359.67	271.03	275.80	227.11	215.46	479.71	270.12	252.17	216.63	204.38
Feed and grain returns.....	309.69	284.99	299.58	299.03	290.64	226.20	242.51	236.30	233.55	236.41
Livestock return above feed...	81.88	82.70	59.23	21.26	35.27	103.19	35.77	23.14	16.70	13.71
Value of farm production.....	398.58	374.69	364.02	325.41	330.60	340.01	286.00	266.83	256.98	256.33
Total non-feed costs.....	349.39	302.02	316.71	282.56	278.19	404.09	301.70	275.82	261.92	254.70
Management returns.....	49.19	72.68	47.31	42.85	52.40	- 64.07	- 15.69	- 8.97	- 4.92	1.63
SELECTED COST ITEMS										
Fertilizer, annual.....	$ 3,724	$ 5,622	$ 8,174	$ 9,728	$19,518	$ 3,173	$ 4,890	$ 6,360	$ 8,472	$13,954
Building repairs.....	983	1,176	1,775	1,697	2,446	771	1,054	1,175	1,763	2,839
Building depreciation.....	2,066	2,594	5,008	4,830	8,106	2,662	2,783	2,938	3,842	6,184
Mach. and equip. depreciation.	3,582	4,597	7,410	9,108	13,878	3,819	4,989	6,065	7,804	12,025
Machinery, repairs, supplies..	2,286	3,300	4,325	5,206	7,730	2,623	2,968	3,713	4,527	6,983
Machinery hire.....	1,090	1,114	1,548	1,300	1,818	997	1,345	1,497	1,458	2,036
Gasoline and oil.....	1,515	2,146	2,907	3,185	5,345	1,386	1,797	2,344	2,920	4,476
Unpaid labor charge.....	7,898	8,040	9,402	9,036	11,686	7,717	7,633	8,470	8,753	9,835
Hired labor charge.....	1,165	1,981	2,183	5,022	11,452	2,763	1,933	2,162	3,112	8,097
Total months of labor.....	14.6	15.7	18.7	22.0	33.1	16.1	15.6	17.7	19.4	27.1
Months of labor hired.....	2.0	2.8	3.7	7.5	14.4	3.7	3.3	4.2	5.4	11.4
FARM INVESTMENT										
Livestock inventory.....	$23,633	$34,189	$47,440	$54,470	$93,079	$36,416	$39,531	$41,672	$51,391	$82,516
Grain inventory.....	24,818	36,691	48,537	61,386	103,637	20,629	31,378	35,638	44,699	67,144
Remaining capital cost in										
Machinery and auto.....	11,394	13,778	23,447	28,746	42,105	12,044	13,928	18,875	24,084	36,318
Buildings and fence.....	18,240	22,807	42,010	41,182	79,016	25,258	25,635	28,987	33,524	51,068
Soil fertility.....	4	0	0	9	0	0	0	0	0	11
Value of land (current).....	163,519	241,713	323,649	435,937	718,063	123,743	198,985	251,439	325,483	538,821
Total farm investment.....	241,608	349,178	485,083	621,730	1,035,900	218,091	309,457	376,611	479,182	775,878
Total investment per acre.....	1,621.53	1,554.73	1,587.75	1,509.05	1,477.17	1,608.75	1,344.44	1,244.63	1,171.07	1,082.53
Machinery investment per tillable acre.....	83.17	66.44	84.93	76.45	66.17	99.86	70.90	74.64	72.28	67.00
PERCENT OF TILLABLE LAND IN										
Corn and corn silage.....	74.0	64.6	63.7	61.5	66.6	69.1	63.5	56.8	58.6	60.2
Soybeans.....	9.5	22.6	21.7	29.6	25.3	9.8	14.9	19.6	22.2	21.7
Wheat.....	1.5	.6	2.3	2.1	1.8	1.4	2.0	2.2	2.6	3.4
Other small grains.....	8.3	5.4	4.8	2.4	1.9	12.3	6.9	6.5	4.3	2.7
Diverted acres.....	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
All hay and pasture crops.....	7.0	6.6	5.6	4.1	4.4	10.1	11.1	12.7	9.9	10.2
CROP YIELDS, bu. per acre										
Corn.....	90	89	100	96	98	73	84	82	78	83
Soybeans.....	24	29	34	28	29	28	25	25	25	25
Wheat.....	37	52	37	33	35	38	36	31	33	30
Oats.....	68	66	62	65	61	39	55	57	54	50

a/ Variations in totals are due to rounding to the nearest dollar.

Table 18. — Average Costs, Return, and Financial Summary of Grain and Hog Farms by Size and Soil Rating, Southern Illinois, 1974[a]

	GRAIN FARMS WITH SOIL RATING 36-85						HOG FARMS WITH SOIL RATING 36-85				
Range in size (total acres)	180-259	260-339	340-499	500-649	650-799	800+	0-179	180-259	260-339	340-499	500+
Number of farms	32	34	125	93	58	115	12	28	24	43	50
Size of farm	226	304	417	566	720	1,237	105	216	298	406	746
Acres of tillable land	205	265	370	494	619	1,046	88	180	249	315	602
Soil rating on till. land	64	64	62	60	61	62	60	64	59	59	56
Beef produced, cwt	25	83	101	83	158	197	32	62	111	152	285
Pork produced, cwt	211	270	288	364	501	729	1,642	1,705	1,739	1,613	3,209
DOLLAR COSTS PER FARM											
Soil fertility	$ 3,342	$ 5,006	$ 7,703	$11,485	$14,880	$24,703	$ 2,012	$ 4,329	$ 5,800	$ 7,428	$14,054
Buildings and fence	1,117	1,800	2,307	2,370	3,549	5,386	2,888	3,608	3,317	3,345	7,725
Machinery and equipment	7,913	11,230	13,221	16,562	21,341	33,614	8,624	11,135	13,124	15,279	24,953
Labor	8,326	8,525	8,972	10,579	13,655	18,094	10,504	9,625	10,850	11,808	18,603
Taxes	1,398	1,952	2,492	2,989	3,810	6,557	860	1,487	1,713	2,200	3,604
Seed and crop expenses	2,942	4,560	5,252	7,273	9,371	17,670	1,271	3,363	3,868	5,399	8,519
Livestock expense	199	272	303	386	662	904	1,263	970	1,106	1,715	2,988
Insurance and misc. exp	732	997	1,148	1,245	1,756	2,669	774	965	1,199	1,246	2,023
Interest on capital	10,155	14,861	18,668	23,415	30,647	50,944	9,005	13,183	15,213	19,515	33,918
Total non-feed costs	36,124	49,203	60,067	76,303	99,671	160,541	37,201	48,665	56,189	67,935	116,387
Total value of feed fed	6,767	10,643	12,288	13,404	20,791	28,256	44,889	45,980	53,413	54,598	98,590
DOLLAR RETURNS PER FARM											
Feed and grain returns	$43,218	$58,664	$78,644	$100,968	$132,436	$212,636	$20,421	$42,313	$43,318	$70,048	$115,389
Livestock return above feed	414	934	- 378	13	339	- 320	12,474	7,645	7,509	1,504	14,734
Custom work	405	303	445	468	487	1,391	47	185	406	270	515
Other cash income	793	1,282	1,342	1,597	2,218	3,609	611	1,588	1,743	1,730	2,745
Value of farm production	44,830	61,183	80,052	103,046	135,481	217,315	33,552	51,731	52,976	73,551	133,383
Management returns	8,706	11,980	19,986	26,743	35,809	56,774	- 3,649	3,066	- 3,214	5,616	16,996
Farm production per $1.00 of non-feed cost	1.24	1.24	1.33	1.35	1.36	1.35	.90	1.06	.94	1.08	1.15
Farm production per man	40,193	53,022	66,378	69,930	72,713	93,884	25,190	40,077	34,487	45,042	56,997
FINANCIAL SUMMARY											
Cash sales	$42,482	$63,386	$77,020	$95,252	$127,282	$207,745	$70,599	$77,920	$89,847	$105,062	$190,483
Sales of capital items	22	595	173	542	308	1,103	485	880	94	794	426
Total cash income	42,504	63,981	77,193	95,794	127,590	208,848	71,084	78,801	89,941	105,856	190,910
Purchased livestock	1,253	1,602	3,325	1,952	4,363	8,323	5,133	6,870	6,926	6,881	19,580
Purchased feed	2,761	5,361	5,308	5,215	6,709	12,912	29,249	22,374	28,885	24,778	44,517
Cash operating expenses	14,539	20,480	25,710	35,638	47,131	81,334	13,457	20,817	24,242	30,337	56,217
Purchase of capital items	7,482	11,539	12,996	16,220	26,481	35,375	8,504	10,957	10,943	14,594	30,696
Total cash expenditures	26,035	38,981	47,339	59,026	84,683	137,943	56,344	61,019	70,996	76,591	151,010
Cash balance	$16,468	$25,000	$29,854	$36,768	$42,906	$70,905	$14,740	$17,781	$18,944	$29,265	$39,899
Inventory change	6,260	4,418	11,342	14,717	18,898	30,356	- 3,223	2,719	- 1,394	- 353	6,472
Capital change	3,696	4,823	5,190	6,833	14,218	16,967	1,458	3,247	3,516	5,070	14,036
Farm products consumed	101	341	264	244	373	448	559	336	334	502	525
Farm and family earnings	26,526	34,583	46,650	58,562	76,395	118,677	13,534	24,083	21,400	34,484	60,932
Labor and mgt. earnings	15,542	19,020	27,184	34,048	43,250	64,221	3,096	10,231	3,896	13,036	24,140
Capital and mgt. earnings	18,861	26,840	38,594	50,399	66,639	108,065	5,357	16,249	12,000	25,131	50,914
Capital and management earnings per acre	83.60	88.44	92.63	89.09	92.55	87.34	51.06	75.29	40.23	61.83	68.24

a/ Variations in totals are due to rounding to the nearest dollar.

Table 18a. — Average Operating Costs, Investments, and Land Use of Grain and Hog Farms by Size and Soil Rating, Southern Illinois, 1974[a]

	GRAIN FARMS WITH SOIL RATING 36-85						HOG FARMS WITH SOIL RATING 36-85				
Range in size (total acres)	180-259	260-339	340-499	500-649	650-799	800+	0-179	180-259	260-339	340-499	500+
Number of farms	32	34	125	93	58	115	12	28	24	43	50
COSTS AND RETURNS PER TILLABLE ACRE											
Soil fertility	$ 16.29	$ 18.92	$ 20.81	$ 23.26	$ 24.04	$ 23.61	$ 22.90	$ 24.03	$ 23.30	$ 23.61	$ 23.33
Buildings and fence	5.44	6.80	6.23	4.80	5.73	5.14	32.88	20.02	13.32	10.63	12.82
Machinery and equipment	38.59	42.44	35.73	33.55	34.48	32.12	98.19	61.81	52.72	48.57	41.43
Labor	40.60	32.22	24.24	21.43	22.06	17.29	119.59	53.43	43.58	37.53	30.89
Value of feed fed	33.00	40.22	33.20	27.15	33.59	27.00	511.06	255.24	214.58	173.57	163.71
Feed and grain returns	210.75	221.74	212.55	204.55	214.01	203.23	232.49	234.88	174.02	222.68	191.61
Livestock return above feed	2.01	3.53	- 1.02	.02	.54	- .30	142.01	42.43	30.16	4.78	24.46
Value of farm production	218.61	231.26	216.35	208.76	218.93	207.70	382.00	287.16	212.82	233.82	221.49
Total non-feed costs	176.16	185.98	162.34	154.59	161.07	153.44	423.54	270.15	225.74	215.97	193.27
Management returns	42.45	45.28	54.01	54.17	57.86	54.26	- 41.53	17.01	- 12.91	17.85	28.22
SELECTED COST ITEMS											
Fertilizer, annual	$ 3,342	$ 4,997	$ 7,688	$11,466	$14,864	$24,662	$ 2,012	$ 4,315	$ 5,786	$ 7,418	$14,020
Building repairs	456	599	731	824	1,254	1,911	447	1,113	981	1,060	2,024
Building depreciation	661	1,201	1,576	1,546	2,295	3,475	2,441	2,495	2,336	2,285	5,701
Mach. and equip. deprec.	3,103	4,911	6,042	7,281	9,643	13,789	4,121	4,321	4,982	6,435	10,498
Mach. repairs, supplies	2,204	2,801	3,294	4,240	5,551	9,563	2,158	2,533	3,471	3,934	6,881
Machinery hire	491	523	618	883	1,108	2,411	379	987	1,006	1,153	1,580
Gasoline and oil	1,354	1,961	2,271	3,139	3,918	6,069	963	1,900	2,316	2,380	3,952
Unpaid labor charge	7,666	7,743	8,056	8,405	9,940	10,959	8,177	7,835	9,401	9,353	10,019
Hired labor charge	660	783	916	2,174	3,716	7,135	2,327	1,791	1,449	2,455	8,584
Total months of labor	13.4	13.8	14.5	17.7	22.4	27.8	16.0	15.5	18.4	19.6	28.1
Months of hired labor	1.1	1.5	1.6	4.2	6.5	10.2	2.9	3.0	3.4	4.6	12.1
FARM INVESTMENT											
Livestock inventory	$ 5,412	$10,049	$12,641	$13,825	$17,760	$30,207	$28,822	$26,121	$30,193	$39,597	$63,790
Grain inventory	16,309	27,688	32,260	38,940	57,548	77,596	15,074	22,298	24,544	34,689	57,879
Remaining capital cost in											
Machinery and auto	7,671	15,275	18,446	23,649	29,542	44,001	13,406	13,219	16,047	20,649	34,762
Buildings and fence	4,104	9,528	9,956	9,954	13,553	20,418	19,150	18,314	14,664	14,057	35,820
Soil fertility	0	15	23	38	59	126	0	36	38	23	43
Value of land (current)	149,500	197,121	256,031	330,044	423,394	743,122	57,781	135,682	167,488	215,884	370,680
Total farm investment	182,995	259,678	329,356	416,450	541,856	915,470	134,233	215,670	252,973	324,897	562,975
Total investment per acre	811.17	855.61	790.52	736.12	752.55	739.85	1,279.42	999.29	848.07	799.36	754.57
Mach. invest./till. acre	37.40	57.73	49.85	47.91	47.74	42.05	152.63	73.38	64.46	65.64	57.72
PERCENT OF TILLABLE LAND IN											
Corn and corn silage	26.1	31.5	31.2	30.7	32.9	34.1	62.2	52.7	42.8	41.3	38.3
Soybeans	51.1	48.1	46.6	47.5	46.7	44.2	16.3	23.2	20.8	34.1	30.9
Wheat	17.9	20.3	20.3	19.5	17.5	21.1	12.1	13.8	16.3	16.9	17.5
Other small grains	.1	.0	.0	.0	.1	.0	.0	.0	.6	.1	.1
Diverted acres	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
All hay and pasture crops	7.5	3.3	4.9	3.9	4.5	4.3	10.3	8.8	10.5	6.5	9.1
CROP YIELDS, bu. per acre											
Corn	78	76	77	80	78	79	73	83	71	79	71
Soybeans	25	25	25	25	25	23	17	27	20	25	24
Wheat	36	31	33	32	32	32	33	31	29	32	31

a/ Variations in totals are due to rounding to the nearest dollar.

Table 19. — Average Costs, Return, and Financial Summary of Dairy Farms by Size and Soil Rating, Northern and Southern Illinois, 1974[a]

	DAIRY FARMS, NORTHERN ILLINOIS, WITH SOIL RATING OF 56-100				DAIRY FARMS, SOUTHERN ILLINOIS, WITH SOIL RATING OF 36-85			
Range in size (total acres)	Under 180	180-259	260-339	340+	Under 180	180-259	260-339	340+
Number of farms	29	46	50	67	18	31	37	46
Size of farm	150	219	296	482	142	221	298	547
Acres of tillable land	131	187	250	374	123	200	259	455
Soil rating on tillable land	77	73	74	70	61	60	59	60
Dairy cows, number	40	48	52	63	39	55	58	68
Pork produced, cwt	87	157	144	310	55	20	50	138
DOLLAR COSTS PER FARM								
Soil fertility	$ 2,142	$ 3,126	$ 4,955	$ 7,142	$ 3,027	$ 4,477	$ 5,848	$10,536
Buildings and fence	2,961	4,209	4,942	6,396	2,175	3,586	3,666	5,965
Machinery and equipment	10,056	13,647	15,037	20,112	10,517	14,878	16,280	23,805
Labor	10,713	11,300	13,432	15,384	10,476	14,139	13,719	17,354
Taxes	1,653	2,075	2,951	4,039	1,198	1,672	1,984	3,310
Seed and crop expenses	1,780	3,150	3,524	6,310	1,712	2,774	3,495	6,503
Livestock expense	2,751	3,013	3,387	3,805	2,167	2,545	3,698	2,936
Insurance and miscellaneous expense	927	1,133	1,264	1,789	713	1,045	1,165	1,523
Interest on capital	12,381	16,989	21,223	30,439	9,182	14,315	16,882	26,143
Total non-feed costs	45,364	58,643	70,713	95,417	41,167	59,431	66,738	98,077
Total value of feed fed	31,546	39,792	45,086	63,680	31,523	43,156	47,777	59,403
DOLLAR RETURNS PER FARM								
Feed and grain returns	$24,694	$38,337	$46,514	$70,806	$26,275	$42,956	$52,345	$81,467
Livestock return above feed	11,231	16,258	15,352	15,497	8,059	13,799	19,293	14,283
Custom work	325	411	410	559	152	160	123	743
Other cash income	1,152	1,301	1,519	2,617	824	2,463	2,763	2,637
Value of farm production	37,402	56,308	63,796	89,480	35,310	59,379	74,524	99,130
Management returns	- 7,962	- 2,335	- 6,918	- 5,937	- 5,857	- 52	7,786	1,052
Farm production per $1.00 of non-feed cost	.82	.96	.90	.94	.86	1.00	1.12	1.01
Farm production per man	24,830	36,213	35,030	41,513	23,388	31,448	39,651	42,304
FINANCIAL SUMMARY								
Cash sales	$48,435	$67,123	$77,540	$106,887	$48,970	$73,868	$89,696	$114,666
Sales of capital items	191	189	188	264	4	119	488	779
Total cash income	48,625	67,313	77,728	107,152	48,974	73,987	90,185	115,446
Purchased livestock	1,295	2,499	4,346	8,164	1,605	1,487	2,795	4,268
Purchased feed	9,561	11,289	13,689	16,355	11,853	14,817	19,191	18,292
Cash operating expenses	17,938	23,360	29,190	41,480	17,783	25,196	29,650	46,575
Purchase of capital items	6,679	12,790	17,652	22,833	4,465	14,300	21,157	25,380
Total cash expenditures	35,473	49,938	64,877	88,831	35,706	55,799	72,792	94,515
Cash balance	$13,152	$17,374	$12,851	$18,320	$13,267	$18,187	$17,392	$20,930
Inventory change	- 648	2,356	3,743	6,346	- 722	1,196	6,142	6,168
Capital change	458	4,137	7,900	10,105	- 922	5,836	11,163	11,212
Farm products consumed	470	617	548	764	520	618	671	855
Farm and family earnings	13,433	24,484	25,042	35,536	12,144	25,837	35,368	39,165
Labor and management earnings	- 635	5,056	445	1,367	1,365	7,337	15,235	8,634
Capital and management earnings	4,419	14,654	14,305	24,501	3,325	14,263	24,667	27,549
Capital and management earnings per acre	29.37	66.95	48.27	50.84	23.34	64.44	82.69	50.41

a/ Variations in totals are due to rounding to the nearest dollar.

Table 19a. — Average Operating Costs, Investments, and Land Use of Dairy Farms by Size and Soil Rating, Northern and Southern Illinois, 1974[a]

	DAIRY FARMS, NORTHERN ILLINOIS, WITH SOIL RATING OF 56-100				DAIRY FARMS, SOUTHERN ILLINOIS, WITH SOIL RATING OF 36-85			
Range in size (total acres)	Under 180	180-259	260-339	340+	Under 180	180-259	260-339	340+
Number of farms	29	46	50	67	18	31	37	46
COSTS AND RETURNS PER TILLABLE ACRE								
Soil fertility	$ 16.32	$ 16.72	$ 19.82	$ 19.07	$ 24.55	$ 22.37	$ 22.60	$ 23.14
Buildings and fence	22.56	22.52	19.77	17.08	17.64	17.92	14.17	13.10
Machinery and equipment	76.61	73.03	60.17	53.71	85.31	74.37	62.93	52.29
Labor	81.63	60.47	53.75	41.08	84.97	70.68	53.03	38.12
Value of feed fed	240.36	212.94	180.44	170.08	255.70	215.74	184.67	130.49
Feed and grain returns	188.15	205.15	186.16	189.11	213.13	214.74	202.33	178.97
Livestock return above feed	85.57	87.00	61.44	41.39	65.37	68.98	74.57	31.37
Value of farm production	284.98	301.32	255.32	238.99	286.42	296.84	288.06	217.77
Total non-feed costs	345.66	313.82	283.01	254.85	333.94	297.11	257.97	215.46
Management returns	- 60.66	- 12.49	- 27.68	- 15.85	- 47.51	- .26	30.09	2.31
SELECTED COST ITEMS								
Fertilizer, annual	$ 2,140	$ 3,126	$ 4,955	$ 7,141	$ 3,027	$ 4,477	$ 5,848	$10,535
Building repairs	881	1,246	1,334	1,820	688	1,235	1,126	1,911
Building depreciation	2,079	2,963	3,608	4,576	1,486	2,351	2,540	4,054
Machinery and equipment depreciation	3,948	5,501	5,956	7,886	3,897	5,994	6,966	9,334
Machinery repairs, supplies	2,452	3,517	3,844	5,512	2,594	3,907	4,386	7,408
Machinery hire	664	1,129	1,129	1,268	1,387	922	1,061	1,520
Gasoline and oil	1,677	1,949	2,366	3,241	1,594	2,539	2,464	3,668
Unpaid labor charge	9,015	9,830	10,737	11,035	8,819	11,575	10,701	11,970
Hired labor charge	1,698	1,470	2,695	4,348	1,656	2,564	3,018	5,384
Total months of labor	18.1	18.7	21.9	25.9	18.1	22.7	22.6	28.1
Months of labor hired	3.7	2.9	4.7	8.2	4.0	4.1	5.4	9.0
FARM INVESTMENT								
Livestock inventory	$24,649	$29,762	$31,358	$45,282	$20,649	$29,223	$34,812	$41,592
Grain inventory	12,024	18,959	22,055	33,294	11,887	19,596	23,069	35,202
Remaining capital cost in								
Machinery and auto	13,788	17,563	20,455	28,010	14,826	20,608	22,465	34,293
Buildings and fence	21,975	33,217	39,133	54,769	12,064	21,681	25,837	29,441
Soil fertility	16	0	0	4	0	0	0	1
Value of land (current)	131,694	180,581	243,652	350,604	88,563	140,534	167,743	298,012
Total farm investment	204,146	280,082	356,652	511,963	147,988	231,641	273,925	438,542
Total investment per acre	1,356.91	1,279.67	1,203.36	1,062.36	1,038.91	1,046.46	918.21	802.39
Machinery investment per tillable acre	105.05	93.98	81.86	74.81	120.26	103.02	86.83	75.33
PERCENT OF TILLABLE LAND IN								
Corn and corn silage	48.2	47.7	51.4	52.5	51.1	46.5	43.4	35.8
Soybeans	1.8	6.5	8.0	6.9	7.4	13.6	21.6	27.5
Wheat	.0	.4	.7	1.2	13.1	12.6	15.4	16.3
Other small grains	13.2	11.2	8.8	9.3	.0	.0	.1	.3
Diverted acres	.0	.1	.0	.0	.0	.0	.0	.0
All hay and pasture crops	36.1	32.5	28.1	26.9	30.0	26.8	21.8	16.8
CROP YIELDS, bu. per acre								
Corn	74	76	76	71	81	79	73	67
Soybeans	30	27	23	19	28	27	23	21
Wheat	0	47	37	35	30	27	30	30
Oats	55	62	54	55				

a/ Variations in totals are due to rounding to the nearest dollar.

Table 20. — Average Costs, Return, and Financial Summary of Beef Cattle and Poultry Farms by Size and Soil Rating, Northern and Southern Illinois, 1974[a]

	BEEF-CATTLE FARMS, NORTHERN ILLINOIS SOIL RATING 56-100					BEEF-CATTLE FARMS, SOUTHERN ILLINOIS SOIL RATING 36-85		POULTRY FARMS, NORTHERN ILLINOIS SOIL RATING 56-100
Range in size (total acres)	180-259	260-339	340-499	500-649	650+	Under 500	500+	All
Number of farms	21	31	56	31	32	16	13	7
Size of farm	237	300	412	569	935	347	807	226
Acres of tillable land	211	263	355	512	735	276	526	213
Soil rating on tillable land	82	82	84	84	77	57	58	87
Hens, number	0	29	2	0	0	19	--	13,520
Beef produced, cwt	1,035	1,000	1,538	2,275	3,120	876	1,084	14
Pork produced, cwt	392	459	452	941	875	481	316	116
DOLLAR COSTS PER FARM								
Soil fertility	$ 5,357	$ 6,237	$ 8,904	$13,073	$18,509	$ 6,191	$11,654	$ 4,851
Buildings and fence	3,968	3,874	5,932	8,413	9,744	3,218	3,886	3,510
Machinery and equipment	11,747	13,381	19,248	25,397	32,534	12,099	18,525	17,743
Labor	8,928	9,483	11,574	15,703	17,977	9,639	16,227	14,960
Taxes	2,663	3,280	4,476	5,844	8,809	2,023	3,860	3,812
Seed and crop expenses	3,848	5,003	6,580	9,312	13,358	3,398	4,955	4,475
Livestock expense	1,168	954	2,451	3,719	3,457	1,148	1,375	3,734
Insurance and miscellaneous expense	1,638	1,343	2,089	2,789	3,369	1,147	1,352	1,774
Interest on capital	22,676	26,548	38,347	54,798	72,306	19,618	32,008	20,470
Total non-feed costs	61,994	70,103	99,601	139,048	180,062	58,481	93,842	75,328
Total value of feed fed	56,831	60,380	81,440	133,627	165,110	50,391	64,834	79,876
DOLLAR RETURNS PER FARM								
Feed and grain returns	$54,011	$63,308	$94,052	$141,460	$177,117	$57,216	$80,760	$62,480
Livestock return above feed	- 13,118	- 13,606	- 23,677	- 32,972	- 48,775	- 7,865	- 34,177	20,505
Custom work	615	901	893	1,009	1,584	222	433	1,100
Other cash income	1,280	1,122	1,948	2,840	3,002	881	1,780	1,050
Value of farm production	42,788	51,725	73,216	112,337	132,927	50,454	48,796	85,135
Management returns	- 19,206	- 18,377	- 26,385	- 26,711	- 47,134	- 8,027	- 45,046	9,807
Farm production per $1.00 non-feed costs	.69	.74	.74	.81	.74	.87	.50	1.13
Farm production per man	35,539	39,805	46,712	52,638	56,534	37,635	21,359	41,626
FINANCIAL SUMMARY								
Cash sales	$124,425	$126,581	$180,288	$288,118	$358,452	$106,340	$129,811	$169,343
Sales of capital items	226	456	363	609	1,042	185	1,092	871
Total cash income	124,651	127,037	180,651	288,728	359,494	106,525	130,903	170,214
Purchased livestock	44,164	38,509	58,917	85,483	137,639	31,440	39,297	28,449
Purchased feed	18,146	15,961	22,727	39,582	44,489	13,671	15,285	58,860
Cash operating expenses	23,987	26,307	39,913	57,022	76,780	23,379	44,467	34,938
Purchase of capital items	13,551	10,229	16,327	21,090	32,529	7,344	14,119	11,325
Total cash expenditures	99,848	91,006	137,884	203,177	291,438	75,834	113,167	133,573
Cash balance	$24,803	$36,030	$42,766	$85,550	$68,056	$30,691	$17,734	$36,641
Inventory change	- 19,725	- 21,022	- 26,127	- 51,409	- 44,327	- 11,300	- 26,814	3,066
Capital change	5,623	1,078	3,399	2,669	10,277	- 610	3,641	445
Farm products consumed	398	603	700	693	930	526	400	34
Farm and family earnings	11,099	16,688	20,737	37,503	34,937	19,306	- 5,038	40,187
Labor and management earnings	- 12,182	- 11,113	- 18,974	- 19,412	- 39,830	- 1,348	- 37,575	17,128
Capital and management earnings	3,471	8,136	11,962	28,088	25,171	11,591	- 13,019	30,277
Capital and management earnings per acre	14.67	27.16	29.06	49.35	26.91	42.00	- 18.31	133.71

a/ Variations in totals are due to rounding to the nearest dollar.

Table 20a. — Average Operating Costs, Investments, and Land Use of Beef Cattle and Poultry Farms by Size and Soil Rating, Northern and Southern Illinois, 1974[a]

	BEEF-CATTLE FARMS, NORTHERN ILLINOIS SOIL RATING 56-100					BEEF-CATTLE FARMS, SOUTHERN ILLINOIS SOIL RATING 36-85		POULTRY FARMS, NORTHERN ILLINOIS SOIL RATING 56-100
Range in size (total acres)	180-259	260-339	340-499	500-649	650+	Under 500	500+	All
Number of farms	21	31	56	31	32	16	13	7
COSTS AND RETURNS PER TILLABLE ACRE								
Soil fertility	$ 25.33	$ 23.73	$ 25.11	$ 25.51	$ 25.17	$ 23.39	$ 23.37	$ 22.75
Buildings and fence	18.76	14.74	16.73	16.41	13.25	12.28	7.30	16.46
Machinery and equipment	55.55	50.91	54.29	49.56	44.25	43.72	34.89	83.24
Labor	42.22	36.08	32.64	30.64	24.45	36.18	30.79	70.18
Value of feed fed	268.79	229.75	229.73	260.76	224.60	189.86	123.87	374.75
Feed and grain returns	255.45	240.89	265.30	276.04	240.93	215.21	149.06	293.13
Livestock return above feed	- 62.04	- 51.77	- 66.79	- 64.34	- 66.34	- 29.99	- 63.87	96.20
Value of farm production	202.37	196.81	206.53	219.21	180.82	189.44	89.44	399.42
Total non-feed costs	293.21	266.75	280.96	271.34	244.94	218.20	179.73	353.42
Management returns	- 90.83	- 69.92	- 74.42	- 52.12	- 64.11	- 28.75	- 90.28	46.01
SELECTED COST ITEMS								
Fertilizer, annual	$ 5,350	$ 6,228	$ 8,863	$13,073	$18,509	$ 6,191	$11,457	$ 4,851
Building repairs	1,294	677	1,545	1,812	1,953	530	1,419	932
Building depreciation	2,675	3,197	4,387	6,601	7,791	2,688	2,467	2,578
Machinery and equipment depreciation	5,021	5,489	8,137	11,211	13,419	5,082	6,721	7,431
Machinery repairs, supplies	2,881	3,256	4,453	5,853	7,739	2,698	5,539	3,394
Machinery hire	810	1,035	1,791	1,706	3,690	1,329	1,543	1,791
Gasoline and oil	2,067	2,292	3,264	4,720	5,684	1,920	3,624	1,876
Unpaid labor charge	7,628	8,552	8,776	9,415	9,766	7,715	7,980	9,911
Hired labor charge	1,300	931	2,798	6,287	8,212	1,925	8,247	5,049
Total months of labor	14.4	15.6	18.8	25.6	28.2	16.3	26.3	24.5
Months of labor hired	2.2	1.9	4.8	10.5	12.6	4.0	13.6	8.7
FARM INVESTMENT								
Livestock inventory	$65,319	$70,176	$109,754	$156,433	$195,150	$63,253	$81,027	$20,783
Grain inventory	31,057	36,870	51,199	79,991	92,421	31,095	40,277	42,656
Remaining capital cost in								
Machinery and auto	16,356	19,960	27,704	39,553	45,585	17,316	27,169	25,658
Buildings and fence	26,797	31,310	45,414	69,894	75,954	24,920	20,439	23,505
Soil fertility	27	42	51	0	0	--	495	0
Value of land (current)	230,241	277,586	392,348	542,575	791,541	173,839	369,116	229,234
Total farm investment	369,796	435,944	626,470	888,445	1,200,649	310,422	538,522	341,836
Total investment per acre	1,563.46	1,455.33	1,521.67	1,561.06	1,283.60	924.82	671.85	1,509.68
Machinery investment per tillable acre	77.35	75.94	78.14	77.18	62.00	61.94	48.83	120.37
PERCENT OF TILLABLE LAND IN								
Corn and corn silage	61.8	67.8	63.0	70.3	70.2	27.2	36.2	52.9
Soybeans	11.5	10.5	11.8	14.3	9.5	16.5	15.5	44.7
Wheat	.6	.7	.7	1.0	1.4	17.5	13.7	.0
Other small grains	5.2	6.2	5.2	4.1	2.8	--	--	1.3
Diverted acres	.0	.0	.1	.4	.0	--	--	.0
All hay and pasture crops	17.2	13.0	16.3	7.7	11.5	25.4	25.6	.0
CROP YIELDS, bu. per acre								
Corn	89	80	90	89	83	82	65	93
Soybeans	30	31	32	29	26	26	21	33
Wheat	30	24	38	40	37	32	27	0
Oats	62	62	67	61	53			

a/ Variations in totals are due to rounding to the nearest dollar.

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Edward A. Thurn
Robert E. Rogers
Kenneth D. Brazle
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Allen D. Koker
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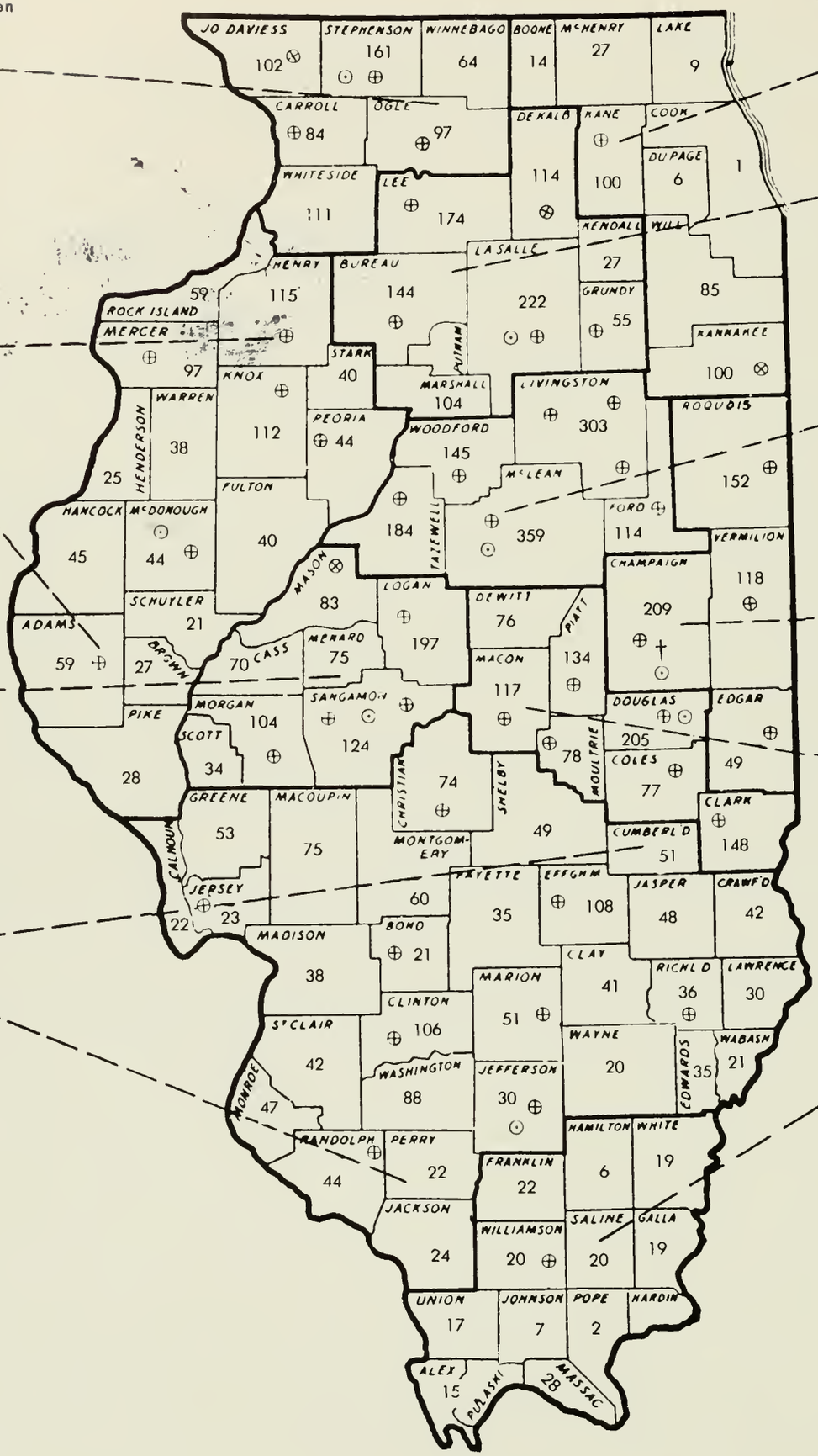

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840

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